

are smaller and rather more numerous, and in colour are a pale neutral tint and washed-out sienna. The second egg is almost pure white, but if closely examined shows a few very faint markings of the palest sienna. The two eggs measure 34.9×28.6 mm. and 33.1×28.0 mm.

Accipiter gularis.

The Japanese Sparrow-Hawk.

This Sparrow-Hawk is only found in India as a rare straggler, but does not, of course, breed there.

I have had three clutches of its eggs from the late Alan Owston, taken on Fuji in April. The number of eggs in each clutch was five, and all three clutches are very similar in appearance, being rather profusely covered with ill-defined blotches of light brown, here and there mixed with darker specks, lines, and other irregular markings of deep vandyke-brown. In most eggs the markings are distributed unevenly over the whole surface of the egg, but in some they were more numerous at the larger end, in two at the smaller, while in one egg they coalesce to form a deep band round the centre. In length they vary between 38.1 and 41.4 mm., in breadth between 31.5 and 32.5 mm., and they average 39.9×32.1 mm.

XIX.—*A Collection of Birds from two Districts of British East Africa.* By C. W. MACKWORTH-PRAED, Lieut. Scots Guards, M.B.O.U.

(Text-figure 3.)

In July 1914 I was going on a shooting-trip up the Tsavo River after certain kinds of big-game animals, and I thought I might as well collect birds too. It was my first experience of African birds, and I knew nothing whatever about them. Consequently I collected as many different species as possible, and lost the opportunity of getting a series of several uncommon birds I met with. Such birds, for

instance, were *Caprimulgus donaldsoni*, *Argya keniana*, *Lybius senex*, *Irrisor damarensis granti*, *Nectarinia nectarinioides*, and others.

As larger game was the chief object, my collecting was limited by the capabilities of my one native bird-skinner,

Text-figure 3.



Sketch-map of East Africa, showing Mr. Mackworth-Præd's route and localities.

and, as silence was essential, a very great deal of the collecting was done with a .22 rifle, with which, of course, only the larger birds could be shot. Only at certain times, such as when we were leaving a camp, could I use a shot-gun.

We left Tsavo station on July 20th, and trekked slowly up the river towards Kilimanjaro through very thick bush-country. After ten days we came to more open scattered bush-country, which is the western edge of the Serengeti Desert. It was the dry season at the time, and the river was the only water left. We then followed up the most easterly of the Tsavo head-streams, till we reached a swamp only a mile or two from the German border. I do not know the proper name of this swamp, if it has one, but I have referred to it as Tsavo Swamp. We remained there until it became necessary to leave the district hurriedly—I may say very hurriedly—on August 12th. We reached Tsavo again on the 17th.

A week or two later I left Nairobi for Thika, some 30 miles away. After collecting there for a few days, a German raid occurred at the other end of the country towards the Victoria Nyanza. When that was over, I returned to Thika, and camped by the Thika River, in the Ithanga Hills, for nearly a month. I then had to return to Europe.

No new birds were met with, but the localities are new for several species—notably for *Aquila pomarina*, the Spotted Eagle, which has not previously been recorded from Africa south of the Sahara.

During the whole time I only saw three of our northern European migrants—the Common Swallow, Common Sandpiper, and Wheatear; while only five others could be called even occasional visitors to Europe—*Aquila pomarina*, *Buteo desertorum*, *Milvus ægyptius*, *Ardeola ralloides*, and *Merops apiaster*.

I thought that African birds nested at any time of year, more or less, but I certainly struck an unfortunate time, as I only saw four species actually breeding. These were *Hieraaëtus spilogaster* (advanced) and *Pterocles decoratus* (beginning) on the low ground in late July and early August; and *Hirundo smithi* and *Stephanibyx coronatus*, both with young, in the highlands in late August.

I was also surprised at the few birds which were common

to the high and low countries. Only 30 species out of the 184 secured occurred in both districts, and several of these were birds of prey or water-birds, to whom the change in altitude would not be of great account. Doubtless there were others which I did not happen to see in both places, although they occurred there, but they were not noticeable at that time of year. The altitude of the Tsavo River is roughly 1800–2000 ft., that of Thika 5000 ft. The following is a list of the species I saw in both places:—

Dicurus adsimilis.	Upupa africana.
Oriolus larvatus.	Coracias caudatus.
Buphaga erythrorhyncha.	Poliohierax semitorquatus.
Dinemellia dinemelli.	Terathopius caudatus.
Anthothreptes zambesiana.	Aquila rapax.
Chalcomitra hunteri.	Accipiter minullus.
Dryoscopus cubla hamatus.	Serpentarius serpentarius.
Lanius cabanisi.	Ardea goliath.
Tehitrea viridis.	Hagedashia hagedash erlangeri.
Hirundo smithi.	Balearica regulorum gibbericeps.
Campethera nubica.	Otis kori struthiunculus.
Centropus superciliosus.	Tringoides hypoleucus.
Melittophagus pusillus.	Stephanibyx coronatus.
Rhinopomastus cyanomelas	Streptopelia capicola.
schalowi.	Pternistes leucocephus infuscatus.
Lophoceros nasutus.	Francolinus sephæna grantii.

I have to thank the authorities of the Natural History Museum for allowing me to work out the collection there, also Mr. Wells, of the Bird-Room, for much assistance. Particularly also I am indebted to Mr. W. L. Sclater for very kind assistance and advice.

Corvultur albicollis.

Corvus albicollis Latham, Ind. Orn. 1790, p. 151 [Africa].

Corvultur albicollis Reichw. Vög. Afr. ii. 1903, p. 640.

♂. Tsavo River. 21st July.

♂. „ 27th July. Wing 445 mm.

A pair of White-necked Ravens generally appeared round the camp if we stayed more than a day at any place. Seen on the Tsavo and the Thika rivers.

Dicrurus adsimilis divaricatus.

Dicrurus adsimilis divaricatus Oberh. P. U.S. Nat. Mus. xxviii. 1905, p. 920 [Angola].

♀ . Tsavo.	19th July.	Wing 121 mm.
♀ . Tsavo River.	27th July.	„ 113 mm.
♀ . Ithanga Hills.	2nd October.	„ 123 mm.

Iris red ; bill and legs black.

Common in both localities.

The Ithanga Hills bird has a rather stronger blue gloss on the back than the two low-country birds.

Oriolus larvatus.

Oriolus larvatus Licht. Verz. Doubl. 1823, p. 20 [Kaffraria].

Oriolus larvatus rolleti Reichw. Vög. Afr. ii. 1903, p. 659.

♂ ♀ ad. Tsavo River.	27th July.	Wing, ♂ 126,
		♀ 135 mm.

♂ imm. Ithanga Hills.	24th Sept.	„ 132 mm.
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Iris red ; bill pinkish brown ; legs black.

Only seen occasionally, in pairs.

There seems to be a good deal of doubt about the identity of the East African Orioles. Lönnberg (K. Sv. Vet.-Ak. Handl. xlvii. 1911, No. 5, p. 97) gives a very good account of what he found in the case of *O. l. rolleti* and *O. l. percivali*. Personally, I shot a pair on the Tsavo, sitting on the same bush, where Orioles were not at all common, and the male should be *O. l. rolleti* and the female *O. l. larvatus*. Shelley, in the 'Birds of Africa,' calls them all *O. larvatus*, and that would at present seem the only thing to do.

Buphaga erythrorhyncha.

Tanagra erythrorhyncha Stanley in Salt's Trav. Abyssinia, App. 1814, p. 59.

Buphagus erythrorhynchus Reichw. Vög. Afr. ii. 1903, p. 667.

♂ . Nairobi.	22nd August.	Wing 120 mm.
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o . Thika.	October.	„ 115 mm.
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The Red-billed Oxpecker was also seen on the Tsavo. I have observed them taking ticks from rhinos, buffaloes, and

domestic cattle. I noticed that they always took alarm and flew up when one approached a rhino, but took no notice of one when they were on cattle. I have heard this commented on as an instance of the bird's cleverness and care for its host. Personally, I prefer the more prosaic explanation that the cattle-attending flocks get used to the presence of man.

Spreo superbus.

Lamprotornis superbus Rüpp. Syst. Uebers. 1845, pp. 65, 75, pl. 26 [Shoa].

Spreo superbus Reichw. Vög. Afr. ii. 1903, p. 674.

♂. Tsavo River. 25th July. Wing 121 mm.

♂. „ 17th August. „ 116 mm.

Iris cream-colour; bill and legs black.

A few flocks of this Starling were seen; it was not common.

Lamprocolius chalybæus.

Lamprotornis chalybæus Hempr. & Ehrenb. Symb. Phys. fol. Y, 1828, pl. 18 [Abyssinia]; Shelley, B. Afr. v. pt. i. 1906, p. 73.

♂. Ithanga Hills. 2nd October. Wing 140 mm.

♀. „ 3rd October. „ 128 mm.

Iris orange; bill and legs black.

Cosmopsarus regius.

Cosmopsarus regius Reichw. Orn. Centralb. 1879, p. 108 [Massa, Tana River]; id. Vög. Afr. ii. 1903, p. 713.

♂. Tsavo River. 11th August. Wing 141 mm.

Iris white; bill and legs black.

The Golden-breasted Glossy Starling was met with in small flocks in the desert bush-country. It was exceedingly shy but not rare.

Lamprotornis purpuropterus.

Lamprotornis purpuropterus Rüpp. Syst. Uebers. 1845, pp. 64, 75, pl. 25 [Shoa]; Reichw. Vög. Afr. ii. 1903, p. 710.

♂. Tsavo River. 18th August. Wing 160 mm.

Iris white; bill and legs black.

This Glossy Starling was common on the Tsavo. It usually kept close to the river, and was not seen in the thorn-bush country away from water.

Creatophora carunculata.

Gracula carunculata Gmel. Syst. Nat. i. 1788, p. 399 [Cape].

Creatophora carunculata Shelley, B. Afr. v. pt. i. 1906, p. 123.

♂. Tsavo Swamp. 6th August. Wing 124 mm.

Iris dark brown; bill pinkish horn-colour; feet dark brown.

One very large flock of the Wattled Starling was met with.

Ploceus (Hyphantornis) bojeri.

Hyphantornis bojeri Finsch & Hartl. in Cab. von der Decken Reise, iii. 1869, p. 32 [Zanzibar].

Ploceus bojeri Hartert, Nov. Zool. 1907, p. 499.

♂ ♀ ad. Tsavo River. 15th August. Wing, ♂ 76, ♀ 70 mm.

Iris red-brown; bill and legs light brown.

Not uncommon on the Tsavo.

Ploceus ocularius suahelicus.

Ploceus ocularius suahelicus Neum. J. f. O. 1905, p. 339 [Usambara].

♀ imm. Thika. 29th August. Wing 71 mm.

Iris dark brown; bill light brown; legs greenish brown.

Anaplectes melanotis.

Ploceus melanotis Lafr. Rev. Zool. 1839, p. 20 [Senegal].

Anaplectes melanotis Shelley, B. Afr. iv. pt. ii. 1905, p. 338, pl. xxxvii. figs. 2 & 3.

♂. Tsavo River. 2nd August. Wing 85 mm.

Iris brown; bill red; legs brown.

Dinemellia dinemelli.

Textor dinemelli Rüpp. Syst. Uebers. 1845, pp. 72, 76, pl. 30 [Shoa].

Dinemellia dinemelli Reichw. Vög. Afr. iii. 1904, p. 7.

♂ ♀. Tsavo River. 1st August. Wing, ♂ 118, ♀ 122 mm.
Iris dark brown; bill and legs black.

This Weaver-Finch was met with in small flocks over the whole of the desert country. It was very common but shy, and it has an almost Parrot-like cry.

Textor albirostris intermedius.

Textor intermedius Cab. J. f. O. 1868, p. 413 [R. Kisuani].

Textor albirostris intermedius Reichw. Vög. Afr. iii. 1904, p. 4.

♀. Tsavo River. 10th August. Wing 112 mm.

♂. „ 15th August. „ 119 mm.

♂. Iris dark brown; bill red; legs slate-colour.

♀. Iris dark; bill red at the base, black at the tip; feet black.

Base of under side of primaries dirty white.

One or two large flocks seen up the Tsavo.

Uræginthus bengalus.

Fringilla bengalus Linn. Syst. Nat. 10th ed. 1758, p. 182 [Benguela].

Uræginthus bengalus Reichw. Vög. Afr. iii. 1904, p. 207.

♂. Thika. 1st September. Wing 52 mm.

Iris red-brown; bill purple; legs light brown.

I have not attempted to go into the subspecies of this bird. Zedlitz (J. f. O. 1911, pp. 604-606) gives a list of twelve, and Mearns has described another from close to this locality, based on the female (Smiths. Misc. Coll. 56, No. 20, p. 6).

I saw several of these birds, generally in small parties near native huts.

Granatina ianthinogastra ianthinogastra.

Uræginthus ianthinogaster Reichw. Orn. Centralb. 1879, p. 114 [Massa, Tana River].

Granatina ianthinogastra ianthinogastra Mearns, Smiths. Inst. Misc. Coll. vol. 61, No. 9, p. 3.

♂. Tsavo Swamp. 7th August. Wing 56 mm.

Iris red; bill red; legs dark.

A very brightly-coloured male; head strongly rufescent.

Uroloncha caniceps.

Pitylia caniceps Reichw. Orn. Centralb. 1879, p. 139 [Nassa, Tana River].

Uroloncha caniceps Shelley, B. Afr. iv. pt. i. 1905, p. 151.

♂. Tsavo River. 2nd August. Wing 59 mm.

Iris brown; bill and legs slate-colour.

Lagonosticta rhodoparia.

Lagonosticta rhodoparia Heugl. J. f. O. 1868, p. 16 [Keren, Bogos-Land]; Reichw. Vög. Afr. iii. 1904, p. 200.

Lagonosticta rhodoparia O.-Grant, Ibis, 1908, pp. 272-274.

♂. Ithanga Hills. 8th October. Wing 49 mm.

Iris red; bill and legs dark.

Common.

Spermestes cucullatus.

Spermestes cucullatus Swains. B. W. Afr. i. 1837, p. 201 [Senegambia]; Lönnberg, K. Sv. Vet.-Ak. Handl. xlvii. 1911, No. 5, p. 104.

♂. Thika. 27th August. Wing 52 mm.

Not uncommon, often in the same sort of places as *Ureaginthus bengalus*. This bird has a distinct metallic-green wash to the feathers of the sides, but this is not so pronounced as in the more western examples of the species.

Quelea sanguinirostris æthiopica.

Ploceus æthiopicus Sundev. Öfv. Vet.-Akad. Förh. 1850, p. 126.

Quelea sanguinirostris æthiopica, Reichw. Vög. Afr. iii. 1904, p. 109.

♀. Tsavo River. 3rd August. Wing 68 mm.

Iris dark brown ; bill red ; legs light brown.

This Weaver-Finch was met with in very large flocks in the desert country.

Euplectes capensis xanthomelas.

Euplectes xanthomelas Rüpp. Neue Wirb., Vög. 1835, pp. 94, 101 [Abyssinia].

Pyromelana capensis xanthomelæna, Stark & Sclat. Fauna S. Africa, i. 1900, p. 133.

♀. Thika. 27th August. Wing 78 mm.

Iris dark brown ; bill light and dark brown ; legs light brown.

Drepanoplectes jacksoni.

Drepanoplectes jacksoni Sharpe, Ibis, 1891, p. 246, pl. v. [Masailand].

Coliuspasser jacksoni Shelley, B. Afr. iv. pt. i. 1905, p. 55.

♂. Thika. 5th September. Wing 86 mm.

Iris dark brown ; bill and legs light brown.

Several large flocks of Jackson's Weaver-Finch were met with in the Kikuyu shambas. No full-plumaged males were seen. The bird obtained is in completely brown dress.

Fringillaria tahapisi.

Emberiza tahapisi Smith, Rep. Exped. C. Afr., App. 1836, p. 48 [Natal].

Fringillaria tahapisi Shelley, B. Afr. iii. 1902, p. 164.

♂. Tsavo River. 15th August. Wing 75 mm.

Iris dark brown ; bill and legs light brown.

The distinction between this species and *F. septemstriata* seems to be very slight. This particular bird has not very much red on the webs of the primaries, and is therefore, according to Shelley, *F. tahapisi*; but there appear to be other cases less easily distinguishable.

Emberiza poliopleura.

Fringillaria poliopleura Salvad. Ann. Mus. Civ. Genov. xxvi. 1888, pp. 269, 537 [Shoa]; Shelley, B. Afr. iii. 1902, p. 149, pl. xxiii. fig. 1.

♀. Tsavo River. 3rd August. Wing 76 mm.

♂. „ 15th August. „ 75 mm.

Iris dark brown; bill and legs light brown.

Quite common and tame in thick bush-country.

Emberiza flaviventris.

Emberiza flaviventris Stephens, Gen. Zool. ix. pt. 2, 1815, p. 374 [Cape]; Shelley, B. Afr. iii. 1902, p. 143.

♀. Thika. 5th September. Wing 82 mm.

♂. Ithanga Hills. 5th October. „ 85 mm.

Iris dark brown; bill dark; legs light brown.

This species was common on the high ground, its place in the desert country being taken by the last species, *E. poliopleura*.

Passer griseus gongonensis.

Pseudostruthus gongonensis Oustalet, Le Nat. 1890, p. 274 [Gongoni, nr. Mombasa].

Passer crassirostris Shelley, B. Afr. iii. 1902, p. 255 [part.].

Passer griseus gongonensis Zedlitz, J. f. O, 1911, p. 36.

♂. Tsavo. 19th July. Wing 95 mm.

♂. Tsavo River. 24th July. „ 96 mm.

Iris dark brown; bill dark; legs light brown.

Oustalet's Sparrow was common close to Tsavo Station.

Petronia pyrgita massaica.

Gymnoris pyrgita massaica Neum. Bull. B. O. C. xxi. 1908, p. 70 [Shendi, White Nile].

♀. Tsavo River. August. Wing 86 mm.

Mirafra fischeri.

Megalophonus fischeri Reichw. J. f. O. 1878, p. 266 [Rabai, Mombasa].

Mirafra fischeri Shelley, B. Afr. iii. 1902, p. 43, pl. xvi. fig. 2.

♂. Ithanga Hills. 1st October. Wing 74 mm.

Iris dark brown; bill dark; legs flesh-colour.

Fischer's Bush-Lark was common in the Ithanga Hills district. It flies up to a point in the air like a Pipit, and then descends. It makes a loud clapping noise as it rises.

Macronyx croceus.

Alauda crocea Vieill. Nouv. Dict. Hist. Nat. i. 1816, p. 365.

Macronyx croceus Shelley, B. Afr. iii. 1902, p. 4.

♀. Nairobi. 22nd August. Wing 94 mm.

♀. Ithanga Hills. 29th August. „ 95 mm.

♂. Thika. 30th August. „ 91 mm.

Iris dark brown ; bill dark ; legs light brown.

The Yellow Long-claw was common in short grass, but was not seen in the desert country.

Motacilla vidua.

Motacilla vidua Sundev. Öfv. Vet.-Akad. Förh. 1850, p. 128 [N.E. Africa] ; Shelley, B. Afr. ii. 1900, p. 268.

♂. Tsavo. 17th August. Wing 94 mm.

♀. Thika. 27th August. „ 92 mm.

Iris dark brown ; bill and legs black.

Seen in any suitable places.

There was another and smaller Wagtail at Thika, living on the stones in fast streams. I shot one or two, but they were carried away by the current. It was probably *M. longicauda*.

Anthothreptes collaris zambesiana.

Anthodiata zambesiana Shelley, Monog. Nectar. 1876, p. 343, pl. iii. fig. 3 [Zambesi].

Anthreptes collaris hypodilus Reichw. Vög. Afr. iii. 1905, p. 443 [part.].

2♂. Tsavo River. 13th August. Wing 55, 53 mm.

♀. Thika. 27th August. „ 53 mm.

Iris dark brown ; bill and legs black.

In 'The Ibis,' 1908, p. 286, Ogilvie-Grant points out the distinctness of this bird from the western *A. hypodila*, though both Shelley and Reichenow put them together.

Anthothreptes longmari orientalis.

Anthreptes orientalis Hartl. J. f. O. 1880, p. 213 [Lado].

Anthreptes longmari orientalis Zedlitz, J. f. O. 1916, p. 73.

♀. Tsavo River. 13th August. Wing 65 mm.

♀ imm. „ 18th August. „ 63 mm.

Iris dark brown ; bill and legs black.

Chalcomitra hunteri.

Cinnyris hunteri Shelley, P. Z. S. 1889, pl. xli. fig. 2
[Useri River].

Chalcomitra hunteri Reichw. Vög. Afr. iii. 1905, p. 462.

2 ♂. Tsavo River. 10th August. Wing 70, 70 mm.

2 ♂ imm. „ 13th & 15th August. „ 68, 67 mm.

♀. „ 15th August. „ 64 mm.

♀. Thika. 27th August. „ 66 mm.

Iris dark ; bill and legs black.

Hunter's Sunbird was very common on the Tsavo. I cannot positively identify the Thika bird ; but it was with a red-throated male, and it is not *C. gutturalis*, as its primary-coverts have no white.

Chalcomitra kirki.

Cinnyris kirki Shelley, Monog. Nectar. 1876, p. 273,
pl. 85 [Zambesi].

Chalcomitra kirki Reichw. Vög. Afr. iii. 1905, p. 460.

♂. Ithanga Hills. 4th October. Wing 65 mm.

Iris dark brown ; bill and legs black.

Cinnyris venustus falkensteini.

Cinnyris falkensteini Fischer & Reichw. J. f. O. 1884, p. 56
[Masai].

Cinnyris venustus falkensteini Reichw. Vög. Afr. iii. 1905,
p. 464.

♂. Thika. 5th September. Wing 55 mm.

Iris dark brown ; bill and legs black.

Cinnyris mariquensis microrhynchus.

Cinnyris microrhynchus Shelley, Monogr. Nectar. 1876,
p. 219, pl. 67 [Zanzibar].

Cinnyris mariquensis microrhynchus Reichw. Vög. Afr. iii.
1905, p. 481.

♂. Tsavo River. 23rd July. Wing 55 mm.

♂. „ 15th August. „ 54 mm.

Iris hazel ; bill and legs black.

Drepanorhynchus reichenowi.

Drepanorhynchus reichenowi Fischer, J. f. O. 1884, p. 56
[Naivasha].

Nectarinia reichenowi Shelley, B. Afr. ii. 1900, p. 28.

♂. Thika. 5th September. Wing 73 mm.

Reichenow's Sunbird was only seen on one occasion, by the side of a papyrus-swamp.

Iris dark brown; bill and legs black.

Nectarinia melanogaster nectarinioides.

Cinnyris nectarinioides Richmond, Auk, xiv. 1897, p. 158
[Kilimanjaro].

Nectarinia nectarinioides Reichw. Vög. Afr. iii. 1905,
p. 496.

♂ ♀. Tsavo River. July. Wing, ♂ 84, ♀ 48 mm.

The Long-tailed Sunbird was quite common in the thick bush-country.

This species appears to be rather a rarity in collections. Although it does differ in size and in the amount of yellow in the pectoral tufts from *N. melanogaster* of Fischer & Reichenow, I should not be surprised to find that the latter was merely a large and brightly-coloured form. Certainly the specimens procured by Hunter in the Teita country are this form, and not, as supposed, typical *N. melanogaster*. Consequently I am considering this bird as a subspecies of *N. melanogaster*.

The female, which does not appear to have been described, answers exactly to Reichenow's description of *N. melanogaster*, but is smaller. Wing 48 mm.; culmen 15; tail 35; tarsus 13.

There is also a bird in the Museum, a male, from the Juba River, in southern Abyssinia, which is very like this species, but has no trace of a yellow pectoral tuft. This may be *N. erlangeri* Reichw., but is some way south of the locality given for that species; so it would seem that there is a complete gradation from the large yellow-tufted bird of Lake Natron to the tuftless bird of southern Abyssinia.

Nectarinia erythrocerca ?

Nectarinia erythrocerca Heugl. SB. Ak. Wien, 1856, p. 272 [White Nile]; Hartl. Orn. W.-Afr. 1857, p. 270.

♀. Thika. 1st September. Wing 62 mm.

♀. Ithanga Hills. 1st October. „ 61 mm.

I am very doubtful as to what these birds really are. The above species has only been found in Uganda, except for two instances in the Rift Valley (*Jackson*), also females. My birds are very yellow underneath, streaked with black, and with small, much-curved bills. They agree exactly with females of this species from Uganda.

The only other possibilities appear to be :

Cinnyris mariquensis suahelicus Reichw., in which the bill is much too large ; and

Cinnyris mariquensis osiris Reichw., of which there are four specimens in the Museum from East Africa, and which appear to differ from typical *C. m. osiris* in that the red pectoral band of the males is very much darker.

In both these, however, the female is too light in colour, and in the latter the tail is too short, 41 mm. against 45 of my birds. I did not see a male in either case. *C. m. micro-rhynchus* is a still smaller bird.

Zosterops senegalensis flavilateralis.

Zosterops flavilateralis Reichw. J. f. O. 1892, p. 192 [E. Africa].

Zosterops senegalensis Shelley, B. Afr. ii. 1900, p. 173 [part.].

♂. Tsavo River. 3rd August. Wing 54 mm.

Iris, bill, and legs dark.

Ægithalus musculus.

Ægithalus musculus Hartl. Orn. Centralb. 1882, p. 91 [Lado].

Anthoscopus musculus Reichw. Vög. Afr. iii. 1905, p. 525.

♀. Tsavo Swamp. 7th August. Wing 48 mm.

Iris brown ; bill dark ; legs slate-colour.

Parus thruppi.

Parus thruppi Shelley, Ibis, 1885, p. 406, pl. xi. fig. [Somaliland]; Reichw. Vög. Afr. iii. 1905, p. 517.

♀. Tsavo River. 23rd July. Wing 62 mm.

Iris brown; bill and feet black.

This bird agrees exactly with the type of *P. t. baraka* Jackson, Ibis, 1899, p. 639; but a considerably larger series is necessary before the validity of the subspecies can be substantiated. Shelley (Birds of Africa, ii. p. 244) considers it merely a seasonal variation. Zedlitz (J. f. O. 1916, p. 80) is also very doubtful. There are only three other specimens of this Tit from East Africa in the Museum, and they are on the whole lighter in the underparts than most northern specimens; but more are required before any decision can be arrived at.

Nilaus minor.

Nilaus minor Sharpe, P. Z. S. 1895, p. 479 [Okoto, Somaliland].

Nilaus afer massaicus Neum. J. f. O. 1907, p. 393.

♀. Tsavo River. 19th September. Wing 73 mm.

Iris dark brown; bill and legs slate-colour.

Antichromus minutus.

Telephonus minutus Hartl. P. Z. S. 1858, p. 292 [Ashantee].

Antichromus minutus Shelley, B. Afr. v. pt. ii. 1912, p. 387.

♂. Thika. 27th August. Wing 76 mm.

Iris light reddish brown; legs slate-colour.

Pomatorhynchus senegalus.

Lanius senegalus Linn. Syst. Nat. i. 1766, p. 137 [Senegal].

Pomatorhynchus senegalus Reichw. Vög. Afr. ii. 1903, p. 547.

♀. Tsavo River. 28th July. Wing 84 mm.

♀. „ 12th August. „ 83 mm.

Iris blue or grey; bill and legs slate-colour.

The Senegal Bush-Shrike was common in open places where the grass was fairly long.

Shelley, in the 'Birds of Africa,' prefers to recognize only one form of this species, but gives eight races recognized by Neumann. Zedlitz, in the J. f. O. 1915, gives fourteen races. There seems to be diversity of opinion about the generic name also: Shelley uses *Tschagra*, Zedlitz *Harpolestes*, and other authors *Telephonus*.

Dryoscopus cubla hamatus.

Dryoscopus hamatus Hartl. P. Z. S. 1863, p. 106 [Unyamwesi].

Dryoscopus cubla hamatus Shelley, B. Afr. v. pt. ii. 1912, p. 349.

♂? Tsavo River. 11th August. Wing 77 mm.

♂. Thika. 31st August. ,, 84 mm.

♀. Ithanga Hills. 3rd October. ,, 75 mm.

Iris red; bill black; legs blue or slate-blue.

The Tsavo bird is probably wrongly sexed; it is indistinguishable from the female from the Ithanga Hills.

Laniarius funebris.

Dryoscopus funebris Hartl. P. Z. S. 1863, p. 105 [Meninga].

Laniarius funebris Shelley, B. Afr. v. pt. ii. 1912, p. 827.

♂. Tsavo River. 2nd August. Wing 86 mm.

♀. Tsavo Swamp. 7th August. ,, 90 mm.

Iris very dark brown; bill and legs black.

Common in the dry country.

Laniarius æthiopicus.

Turdus æthiopicus Gmel. Syst. Nat. i. pt. 2, 1789, p. 824 [Abyssinia].

Laniarius æthiopicus ambiguus Madarasz, Ann. Mus. Nat. Hung. ii. 1904, p. 205.

♀ ad. Thika. 29th August. Wing 93 mm.

Not uncommon; the bell-like note at once attracts attention. Lönnberg (K. Sv. Vet.-Ak. Handl. xlvii. No. 5, p. 91) comes to the conclusion that the subspecies, based on the amount of white on the wing, cannot be upheld.

Rhodophoneus cathemagmenus.

Laniarius cathemagmenus Reichw. J. f. O. 1887, p. 63
[Loeru, G. E. A.].

Rhodophoneus cathemagmenus Shelley, B. Afr. v. pt. ii.
1912, pl. 54. figs. 2 & 3.

♀ juv. Tsavo River. 31st July. Wing 90 mm.

♀ ad. „ 2nd August. „ 92 mm.

♂ imm. „ 2nd August. „ 95 mm.

♂ ad. Tsavo Swamp. 6th August. „ 100 mm.

Iris dark brown; bill black; legs slate-colour.

The Crimson-throated Shrike was common in the thick bush near the Tsavo River and in scattered clumps on the Serengeti Plains. It is a bird of skulking habits, creeping through thick bushes and rarely flying more than a few yards.

Chlorophoneus sulfureopectus similis.

Malaconotus similis Smith, Rep. Exp. Cent. Afr. 1836,
p. 44 [N. of Kurriehaine].

Chlorophoneus sulfureopectus suahelicus Neum. J. f. O.
1905, p. 221.

Chlorophoneus similis Shelley, B. Afr. v. pt. ii. 1912,
p. 427.

♀. Tsavo River. 13th August. Wing 83 mm.

♀. Tsavo Swamp. 7th August. „ 88 mm.

Iris brown; bill and legs slate-colour.

Lanius (Fiscus) cabanisi.

Lanius caudatus auct.

Lanius cabanisi Hartert, Nov. Zool. xiii. 1906, p. 404
[E. Africa].

♀. Tsavo River. 29th July. Wing 111 mm.

♀. Tsavo Swamp. 3rd August. „ 113 mm.

♂. Thika. 5th September. „ 112 mm.

Iris dark brown; bill and legs black.

Cabanis's Fiscal Shrike was seen in the open bush-country high up the Tsavo. Only one pair was noticed at Thika.

Lanius humeralis uropygialis.

Lanius uropygialis Reichw. J. f. O. 1905, p. 560 [Uganda].

♂. Nairobi. 22nd August. Wing 95 mm.

Iris brown; bill and legs black.

This Shrike was common on the telephone-wires crossing the streets of Nairobi.

Sigmodus retzii graculinus.

Prionops graculinus Cab. J. f. O. 1868, p. 412 [Mombasa].

Sigmodus retzii graculinus Neum. Orn. Monatsb. 1899, p. 91.

2 ♀. Tsavo River. 21st July. Wing 130, 124 mm.

♀ juv. „ 25th July. „ 120 mm.

Iris yellow; bill red at the base, tip yellow; feet red.

This bird was common in small flocks in the riverside trees. I once saw three, which I took to be males of this species, sitting one behind the other on the bough of a doum-palm, and solemnly bowing in unison to two others on another bough, who were not taking the slightest notice. Their behaviour is much more that of Starlings than of Shrikes.

Prionops cristata intermedia.

Prionops intermedia Sharpe, Bull. B. O. C. xi. 1901, p. 47 [Teita]; Neum. J. f. O. 1905, p. 219.

♂ ad. Tsavo River. 25th July. Wing 115 mm.

This Helmet Shrike was common in small flocks up to a dozen.

Shelley (Birds of Africa, v. p. 487) considers this bird is probably the adult of *P. vinaceigularis* Richmond; but as Oberholser (P. U.S. N. M. xxviii. p. 924) refers to the latter as "this very distinct species," I have adhered to Sharpe's name. Otherwise *P. vinaceigularis* has priority.

Eurocephalus rüppelli.

Eurocephalus rüppelli Bonap. Rev. Mag. Zool. 1853, p. 440 [Shoa]; Reichw. Vög. Afr. ii. 1903, p. 526.

Eurocephalus anguitemus fischeri Zedlitz, Orn. Monatsb. 1913, p. 58 [Central East Africa].

♂ ♀. Tsavo River. 23rd July. Wing, ♂ 121, ♀ 125 mm.

Iris dark brown ; bill black.

Rüppell's Wood-Shrike was common, and generally to be found in pairs.

German authors recognise five subspecies of this bird. I have examined the specimens in the British Museum from the whole of north-eastern Africa, and even with the aid of Zedlitz's key (J. f. O. 1915, p. 50) can find no distinctions in size or coloration which are in any way constant.

Prinia mystacea.

Prinia mistacea Rüpp. Neue Wirb. 1835, p. 110 [Abyssinia].

Prinia mystacea Reichw. Vög. Afr. iii. 1905, p. 590.

♂. Thika. 31st August. Wing 51 mm.

♂. Ithanga Hills. 8th October. „ 48 mm.

Iris reddish brown ; bill dark ; legs light brown.

Camuroptera griseoviridis griseigula.

Camuroptera griseigula Sharpe, Ibis, 1892, p. 158 [River Voi, Teita].

Camuroptera griseoviridis griseigula Zedlitz, J. f. O. 1911, p. 340.

♀. Ithanga Hills. 29th September. Wing 56 mm.

Iris dark brown ; bill dark ; legs light brown.

Calamonastes simplex.

Thamnobia simplex Cab. J. f. O. 1878, pp. 205, 221 [Zanzibar].

Calamonastes simplex Reichw. Vög. Afr. iii. 1905, p. 573.

♀. Tsavo River. 2nd August. Wing 62 mm.

♂. „ 14th August. „ 54 mm.

Iris red ; bill black ; legs light brown.

Cisticola chiniana cantans.

Drynaeca cantans Heuglin, Ibis, 1869, p. 96.

Cisticola chiniana cantans O. Grant, Ibis, 1913, p. 605.

♂ ad. Tsavo Swamp. 4th August. Wing 66 mm.

♂ imm. Tsavo River. 13th August. „ 61 mm.

Iris dark brown ; bill and legs light brown.

Common.

Ænanthe pileata.

Motacilla pileata Gmel. Syst. Nat. i. pt. 2, 1789, p. 965
[Cape of G. Hope].

Saxicola pileata A. Smith, Ill. Zool. S. Afr. Aves, 1839,
pl. xxviii.

♂. Tsavo River. 31st July. Wing 88 mm.

Bill and legs black.

Not common.

Ænanthe ænanthe.

Motacilla ænanthe Linn. Syst. Nat. 1758, p. 186 [Sweden].

Saxicola ænanthe Reichw. Vög. Afr. iii. 1905, p. 723.

2 ♀. Ithanga Hills. 1st October. Wing 95, 96 mm.

Iris dark brown; bill and legs black.

Only a few Common Wheatears were seen.

Myrmecocichla æthiops cryptoleuca.

Myrmecocichla cryptoleuca Sharpe, Ibis, 1891, p. 445
[Kikuyu].

Myrmecocichla æthiops cryptoleuca Reichw. Vög. Afr. iii.
1905, p. 706.

♀. Thika. October. Wing 120 mm.

♀. Nairobi. 23rd October. „ 112 mm.

Iris dark brown; bill and legs black.

This species was common in patches in the highlands. It was fond of open ground, and liked to sit on the top of a bush or on a telegraph-wire like a Shrike.

Erythropygia leucoptera vulpina.

Erythropygia vulpina Reichw. J. f. O. 1891, p. 62 [Teita].

Erythropygia leucoptera Reichw. Vög. Afr. iii. 1905,
p. 773 [part.].

♂. Serengeti Plains, Tsavo River. 23rd July. Wing 68 mm.

♀. „ „ 3rd August. „ 67 mm.

Iris black; bill dark; feet slate-colour.

This seems to be quite a recognisable race, having a richer red back and the red colour extending on to the neck; the top of the head is also darker. It is confined to the Kilimanjaro region. I can find nothing as dark in the large series of the typical race from Somaliland.

Quite common in the desert scrub.

Crateropus hypoleucus.

Crateropus hypoleucus Cabanis, J. f. O. 1878, pp. 205, 226 [E. Africa]; Reichw. Vög. Afr. iii. 1905, p. 665.

2 ♂. Thika. 27th August. Wing 110, 108 mm.

Iris white; bill black; feet dark.

Only one small flock of this bird was met with. They were tame and noisy.

Argya keniana?

Argya keniana Jackson, Bull. B. O. C. xxvii. 1910, p. 7 [Kenya Dist.].

♀. Serengeti Plains, Tsavo River. Wing 78 mm.

I think this bird, which was quite common where it occurred, will be found to be at any rate subspecifically distinct from *Argya keniana*; but the only specimen I secured is in such bad condition that I cannot be certain. It is much redder above and below than *A. keniana*, and the forehead is a richer and darker brown. In size it is larger—wing 78 mm., against 70. It was numerous and generally in small parties in the clumps of bush and sanseveria on the edge of the Serengeti Plains. This species is distinct from the *rubiginosa-heuglini* group, in that the breast- and forehead-feathers are rounded and not pointed and streaked, though *A. heuglini* occurs in the same country.

Pycnonotus layardi.

Pycnonotus layardi Gurney, Ibis, 1879, p. 390 [Rustenberg].

♂. Thika. 26th August. Wing 93 mm.

Iris dark brown; bill and legs black.

This Bulbul was common. It has quite a nice little song. It was not seen elsewhere.

Pycnonotus dodsoni.

Pycnonotus dodsoni Sharpe, P. Z. S. 1895, p. 488 [Sillul, Somaliland]; Reichw. Vög. Afr. iii. 1905, p. 425.

♂. Tsavo River. 27th July. Wing 78 mm.

♂. „ 14th August. „ 84 mm.

Iris dark brown; bill and legs black.

This Bulbul was quite common. I wonder if this is by

any chance the bird which Oberholser describes as *P. layardi micrus* from the same locality, as it agrees perfectly with his description (P. U.S. Nat. Mus. xxviii. pp. 891-92). He especially mentions the white tips to the breast- and tail-feathers, which are characteristic of *P. dodsoni* and which *P. layardi* does not have.

Eurillas latirostris eugenius.

Andropodus latirostris eugenius Reichw. Vög. Afr. iii. 1904, p. 414 [Victoria Nyanza].

♀. Thika. 29th August. Wing 82 mm.

Iris dark brown; bill dark yellow; legs light brown.

Reichenow separates this subspecies by the running together of the yellow chin-stripes. In the large series in the Museum this character appears to be very variable, and I very much doubt if the subspecies can be upheld.

Campephaga nigra.

Campephaga nigra Vieill. Nouv. Dict. x. 1817, p. 50 [S. Africa]; Shelley, B. Afr. v. pt. ii. 1912, p. 205.

♂. Ithanga Hills. 24th September. Wing 100 mm.

Iris brown; bill and legs black.

Only one seen.

Graucalus pectoralis.

Graucalus pectoralis Jardine & Selby, Ill. Orn. ii. 1828, p. 57 [Sierra Leone].

Coracina pectoralis Shelley, B. Afr. v. pt. ii. 1912, p. 218.

♂. Tsavo River. 22nd August. Wing 134 mm.

Iris dark brown; bill and legs black.

Tchitrea viridis.

Muscicapa viridis S. Müll., Linn. Nat. Syst. Suppl. 1776, p. 171.

♂, white form. Tsavo River. 27th July. Wing 80 mm.

♂, " " " 12th August. " 78 mm.

♂, red form. Ithanga Hills. 3rd October. " 79 mm.

Iris dark; bill and legs blue.

The white phase of the Paradise Flycatcher was common

on the Tsavo, living in the trees over the river; the red phase was rare. On the Thika I saw many of the red phase, but only one white.

There seems to be very considerable doubt as to the division of this group into subspecies, and so I have kept to the oldest name. The red bird has ashy-grey under tail-coverts.

Platystira peltata.

Platystira peltata Sund. Öfv. Vet.-Ak. Förh. 1850, p. 105 [Kaffraria].

Platysteira peltata Reichw. Vög. Afr. ii. 1903, p. 487.

♀. Thika. 26th August. Wing 66 mm.

Iris chocolate surrounded by white; eye-wattles red; bill and legs black.

Male by plumage. Only specimen seen; in thick forest fringing the Thika River.

Batis molitor puella.

Batis puella Reichw. Jahrb. Hamburg, 1893, p. 18.

Batis molitor puella Neum. J. f. O. 1907, p. 355.

♂. Ithanga Hills. October. Wing 59 mm.

♂. " " " " 59 mm.

Both these birds are sexed as males, though one is in the chestnut-banded female dress.

Chloropeta massaica.

Chloropeta massaica Fischer & Reichw. J. f. O. 1884, p. 54 [Kilimanjaro].

Chloropeta natalensis massaica Reichw. Vög. Afr. iii. 1905, p. 465.

♀. Thika. 29th August. Wing 63 mm.

Iris dark brown; bill light brown; legs black.

Reichenow treats both this species with a brown head and the plain-headed *C. n. kenya* as subspecies of *C. natalensis*. The two species occur together on the Kikuyu Escarpment and on Kenya, in the same valley of Ruwenzori, and at Lake Kivu in the Belgian Congo. In fact, it would almost seem as if one did not occur without the other; only,

according to Ogilvie-Grant in the Report of the Ruwenzori Expedition, *C. massaica* occupies the lower ground up to 6000 ft. and *C. n. kenya* ranges from 7000–10,000 ft. The question then arises: "Is it possible to maintain a 'geographical' race on a difference of 1000 ft. or so in elevation?" I should personally consider it a better division than mere distance; but it is a point of interest. As, however, *C. massaica* is so distinct from *C. natalensis*, it would appear to be best to regard it as a separate species.

Muscicapa caerulescens.

Butalis caerulescens Hartlaub, Ibis, 1865, p. 268 [Natal].

Muscicapa caerulescens O.-Grant, Ibis, 1917, p. 85.

♂ ad. Ithanga Hills. 2nd October. Wing 81 mm.

Iris dark brown; bill and legs dark.

Dioptrornis fischeri.

Dioptrornis fischeri Reichw. J. f. O. 1884, p. 53 [Meru Mts., Massai].

♀. Nairobi. 22nd August. Wing 90 mm.

Iris dark brown; bill blue; legs black.

Bradyornis murinus.

Bradyornis murinus Hartl. & Finsch, Vög. Ost-Afr. iv. 1870, p. 866 [Kakonda]; Ogilvie-Grant, Ibis, 1913, pp. 634, 636.

♂. Thika. 26th August. Wing 95 mm.

♀. „ 29th August. „ 102 mm.

♂ imm. „ 1st September. „ 91 mm.

Iris dark brown; bill and legs black.

Very common on one small piece of ground at Thika; not seen elsewhere.

Melænornis ater tropicalis.

Melænornis ater tropicalis Neum. J. f. O. 1900, p. 256 [S. Ukamba].

♀. Tsavo River. 27th July. Wing 102 mm.

Iris dark brown; bill and legs black;

This species was not uncommon on the Tsavo, keeping very much in the bushes.

Psalidoprocne holomeiæna.

Hirundo holomelas Sund. Öfv. Vet.-Ak. Förh. 1850, p. 108 [Port Natal].

Psalidoprocne holomeiæna massaiæ Neumann, Orn. Monatsb. xii. 1904, p. 144 [E. Africa].

♂. Thika. 27th August. Wing 96 mm.

♀. „ 3rd October. „ 100 mm.

Iris dark brown; bill black; legs light brown.

A weak-flying species, travelling across country in fair-sized flocks.

I can see no difference in size or colouring between birds from South and East Africa. In both localities the wing-measurement varies from under 100 to over 110 mm.

Hirundo monteiri.

Hirundo monteiri Hartl. Ibis, 1862, p. 340, pl. xi. [Angola]; Reichw. Vög. Afr. ii. 1903, p. 416.

2 ♀. Ithanga Hills. 8th Oct. Wing 141, 143 mm.

3 ♂. „ 9th Oct. „ 133, 140, 142 mm.

Iris dark brown; bill and legs dark.

Monteiro's Swallow was common and generally high-flying. It was readily distinguishable on the wing from the last-named species by the larger size and by the greater amount of white under the wing.

Two of these birds have very little trace of white on the tail-feathers. This bird is undoubtedly a southern and eastern form of *H. senegalensis*, but they appear to occur together in certain parts of their range.

Hirundo emini.

Hirundo emini Reichw. J. f. O. 1892, pp. 30, 215 [Victoria Nyanza]; id. Vög. Afr. ii. 1903, p. 420.

♂ ♀. Ithanga Hills. 9th October. Wing 123, 126 mm.

♂. Thika. 1st September. „ 128 mm.

Iris dark brown; bill black; legs dark brown.

Common; not seen on the Tsavo.

Hirundo puella abyssinica.

Hirundo puella abyssinica Oberholser, P. U.S. Nat. Mus. xxviii. 1905, p. 933 [Taveta].

♂ ♀. Ithanga Hills. 4th October. Wing, ♂ 109 mm.
♀ 110 mm.

Iris dark brown ; bill and legs black.

Abundant.

The smaller and more finely-streaked race of this bird, *H. p. puella*, is confined to north-west Africa, specimens from the Congo and northern Angola being apparently of the present race.

Hirundo griseopyga griseopyga.

Hirundo griseopyga Sund. Œfv. Vet.-Ak. Förh. 1850, p. 107 [Port Natal] ; Reichw. Vög. Afr. ii. 1903, p. 403.

♂. Thika. 1st September. Wing 77 mm.

♀ juv. ,, ,, 88 mm.

♀ ad. Ithanga Hills. 2nd October. ,, 93 mm.

Iris dark brown ; bill and legs black.

There are two races of this Swallow, as was pointed out by Heuglin so long ago as 1862, when describing the eastern form under the name of *Atticora cypseloides*.

1. **HIRUNDO GRISEOPYGA GRISEOPYGA.**

Hirundo griseopyga Sund. Œfv. Vet.-Ak. Förh. 1850, p. 107 [Port Natal].

Atticora cypseloides Heuglin, J. f. O. 1862, p. 297.

Range. South and East Africa.

Rump a pale grey fawn-colour.

2. **HIRUNDO GRISEOPYGA MELBINA.**

Atticora melbina Verr. Rev. Mag. Zool. 1851, p. 310 [Gaboou].

Hirundo poucheti Petit, Bull. S. Z. Fr. 1883, p. 43.

Range. West Africa, Gaboon and Liberia.

Rump dull brown.

Hirundo smithi.

Hirundo smithi Leach, Tuck. Voy. Congo, App. 1818, p. 407 [Congo River] ; Reichw. Vög. Afr. ii. 1903, p. 410.

♂. Tsavo River. 17th August. Wing 102 mm.

♂. Tsavo. 15th August. ,, 109 mm.

Iris red ; bill and legs black.

The Wire-tailed Swallow was common. I found it breeding in the roofs of huts at Thika.

Hirundo rustica rustica.

Hirundo rustica Linn. Syst. Nat. 1758, p. 191 [Sweden];
Reichw. Vög. Afr. ii. 1903, p. 406.

♀ ad. Ithanga Hills. 4th October. Wing 124 mm.

Iris dark brown; bill black; legs very dark brown.

The Chimney Swallow was very numerous in October,
just returning from Europe.

Riparia rufigula.

Cotile rufigula Fischer & Reichw. J. f. O. 1884, p. 53
[Naivasha, B.E.A.].

Riparia rufigula Reichw. Vög. Afr. ii. 1903, p. 400.

♂. Tsavo River. 13th August. Wing 108 mm.

Iris dark brown; bill dark; legs light brown.

This was the only specimen seen.

On examining the series in the British Museum, I found
that the species was easily divisible into two races: a typical
dark-coloured race, and a larger and paler northern form.

1. *RIPARIA RUFIGULA RUFIGULA.*

Cotile rufigula Fischer & Reichw. J. f. O. 1884, p. 53
[Naivasha, B.E.A.].

Range. German and British East Africa to the Congo and
Nigeria.

Size smaller. Wing 104–114 mm., average 108. Throat
and upper breast distinctly red. Back and underparts
darker.

2. *RIPARIA RUFIGULA* subsp.?

Range. Northern Abyssinia and Eritrea (Bogos Land).

Size larger. Wing 117–120 mm., average 118. Throat
and upper breast pale with a very faint tinge of red. Back
and underparts lighter.

A bird from Kullo, southern Abyssinia, appears to be
intermediate both in size and coloration.

When writing the above I overlooked the fact that a bird
which I take to be the same had been described by Zedlitz
(Orn. Monatsb. 1908, p. 177) as *R. r. pusilla*, a subspecies
not of *R. rufigula*, but of *R. rupestris*. The obvious step
after that is the inclusion of *R. rufigula* as a subspecies of

R. rupestris, and this he has proceeded to do (J. f. O. 1910, p. 785). Continuing on the same lines, it might be possible to prove the South African *R. fuligula* a subspecies of *rupestris*. However, for the sake of convenience, if for no other reason, I should certainly be inclined to regard a small red-throated tropical African bird as specifically distinct from the larger light-throated Crag-Martin of southern Europe.

Thripias namaquus namaquus

Picus namaquus Licht. Cat. Rer. Nat. Hamb. 1793, p. 17 [S. Africa].

Mesopicus namaquus Reichw. Vög. Afr. ii. 1903, p. 189.

♂ imm. Tsavo River. 15th August. Wing 129 mm.

Claude Grant proposes a subspecies, *T. n. intermedius*, for birds from northern German East Africa (Ibis, 1915, p. 465). He distinguishes it from *T. n. namaquus* by the fact that the auricular patch is more or less joined to the throat stripe. Very much the same character, however, can be seen in some examples from South Africa. This particular bird is in almost adult plumage, comes from north of the range of *T. n. intermedius*, and is, as far as I can see, typical *T. n. namaquus*, with very gold-stained wing-quills, light-coloured breast, and auricular patch confined to the ear-coverts.

Dendropicos fuscescens massaicus.

Dendropicos guineensis massaicus Neum. J. f. O. 1900, p. 206 [Lake Nguruman, north of Lake Victoria].

Dendropicos fuscescens massaicus C. Grant, Ibis, 1915, p. 456.

♀. Tsavo River. 28th July. Wing 86 mm.

Iris red; bill dark; legs green.

Campethera nubica nubica.

Picus nubicus Bodd. Tabl. Pl. Enl. 1783, p. 41 [Nubia].

Campethera nubica nubica C. Grant, Ibis, 1915, p. 451.

♀. Tsavo River. 24th July. Wing 108 mm.

♂. Ithanga Hills. 1st October. „ 110 mm.

Trachyphonus darnaudii böhmi.

Trachyphonus böhmi Fischer & Reichw. J. f. O. 1884, p. 179 [Pare Mts., G.E.A.].

Trachyphonus darnaudii böhmi C. Grant, Ibis, 1915, p. 450.

♀. Tsavo River. 26th July. Wing 76 mm.
Iris brown; bill horn-colour; legs slate-colour.

Trachyphonus erythrocephalus erythrocephalus.

Trachyphonus erythrocephalus Cab. J. f. O. 1878, p. 206, pl. ii. figs. 1 & 2 [Zanzibar, Mombasa].

Trachyphonus erythrocephalus erythrocephalus C. Grant, Ibis, 1915, p. 448.

♂ ♀. Tsavo River. 23rd July. Wing, ♂ 102, ♀ 95 mm.
Iris dark brown; bill pinkish brown; legs slate-colour.
Common on the Tsavo.

Pogoniulus pusillus affinis.

Barbatula affinis Reichw. Orn. Centralb. 1879, p. 114 [Kipini, B.E.A.].

Pogoniulus pusillus affinis C. Grant, Ibis, 1915, p. 442.

♂. Tsavo River. 24th July. Wing 56 mm.

Tricholæma lacrymosa.

Tricholæma lacrymosa Cab. J. f. O. 1878, p. 205 [E. Africa]; C. Grant, Ibis, 1915, p. 440.

♂. Tsavo River. 2nd August. Wing 69 mm.
Iris dark brown; bill and legs black.

Tricholæma melanocephala stigmatothorax.

Tricholæma stigmatothorax Cab. J. f. O. 1878, p. 205 [Ndi, Taita].

Tricholæma melanocephala stigmatothorax C. Grant, Ibis, 1915, p. 439.

♂. Tsavo. 19th July. Wing 64 mm.
Iris dark; bill and legs black.

Lybius senex.

Pogonorhynchus senex Reichw. J. f. O. 1887, p. 59 [Ikanga, Ukamba].

? *Lybius leucocephalus* C. Grant, Ibis, 1915, p. 438 [part.].

♂. Thika. 28th August. Wing 98 mm.

♂. Nairobi. 22nd August. „ 96 mm.

Iris dark brown; bill and legs black.

This White-headed Barbet was quite common at Thika. It lived in the larger fig-trees in the open, and I found it a nuisance, as it would sit on a bough over my head and utter a loud note when I was waiting for Green Pigeons. Lönnberg (Vet. Ak. Handl. xlvii. No. 5, 1911, p. 65) considers this a very rare bird, and there are not many specimens in the Museum. I could have shot a dozen any day at Thika, and I shot one from a flock of seven at Nairobi. I saw no sign of any with darker breasts.

Indicator indicator

Cuculus indicator Gmel. Syst. Nat. 1788, i. p. 418 [Interior of Africa].

Indicator indicator C. Grant, Ibis, 1915, p. 430.

♂. Tsavo Swamp. 4th August. Wing 105 mm.

Iris light brown; bill and legs dark.

The Honey-Guide was quite common on the Tsavo. It was unusual not to see one or two during the morning. Their intentions may be excellent, but they are a pest when one is stalking an animal. I only followed one once and it brought me to a bee's hole in a tree in a very short time, though it never settled in the tree but suddenly became silent when I was getting "warm."

This specimen is in the plumage of *I. major* Steph.

Centropus superciliosus superciliosus.

Centropus superciliosus Hempr. & Ehr. Symb. Phys. 1828, fol. r [S. Arabia].

Centropus superciliosus superciliosus C. Grant, Ibis, 1915, p. 424.

♂ imm. Tsavo River. 21st July. Wing 161 mm.

♀. „ 25th July. „ 156 mm.

♀ adult. Iris red; bill and feet black.

♂ imm. Iris brown; bill brown; legs dark.

The White-eyebrowed Lark-heeled Cuckoo was seen

throughout the country, though I do not know if all were of the same race. On the Tsavo it was common and fond of crawling about in thick grass and under the dead palm-leaves; it rarely flew more than a few yards. It has a weird bubbling note.

The immature specimen has a tail of 9·5 inches against the others' 8, and it is barred for its whole length, the bars becoming wider at the tip.

Chrysococcyx klaasi.

Cuculus klaasi Stephens, in Shaw's Gen. Zool. ix. pt. i. 1815, p. 128 [South Africa].

Chrysococcyx klaasi Reichw. Vög. Afr. ii. 1902, p. 98.

♂. Thika. 27th August. Wing 99 mm.

Iris dark brown; bill and legs green.

Only one example seen.

Cuculus clamosus.

Cuculus clamosus Lath. Gen. Syn. ii. Suppl. 1802, p. xxx [Cape]; Reichw. Vög. Afr. ii. 1902, p. 86.

♂. Ithanga Hills. 6th October. Wing 168 mm.

Iris red; bill black; legs brown.

I saw this bird on one occasion only. It was sitting on a dead bough like a Drongo, and I should have passed it by as such except that a real Drongo came and mobbed it.

Corythaixoides leucogaster.

Chizürhis leucogaster Rüpp. Mus. Senck. iii. 1842, p. 127 [S. Abyssinia].

Corythaixoides leucogaster C. Grant, Ibis, 1915, p. 414.

♂. Tsavo River. 20th July. Wing 213 mm.

♀. „ 27th July. „ 217 mm.

Iris dark or brown; bill green; legs black.

Common on the Tsavo River. A very noisy bird with a bleat like a sheep.

Both these birds have green bills.

Gallirex porphyreolophus chlorochlamys.

Gallirex chlorochlamys Shelley, Ibis, 1881, p. 118 [Ugogo]; Reichw. Vög: Afr. ii. 1902, p. 40.

♀. Ithanga Hills. 3rd October. Wing 174 mm.
Iris dark brown ; bill black.
Only one seen.

Turacus hartlaubi.

Corythaix hartlaubi Fischer & Reichw. J. f. O. 1884,
p. 52 [Meru, nr. Kilimanjaro].

♂. Thika. 27th August. Wing 171 mm.
Iris dark brown ; bill reddish brown ; legs black.
Fairly common in this district.

Apaloderma narina narina.

Trogon narina Steph. in Shaw's Gen. Zool. ix. pt. i. 1815,
p 14 [Knysna Dist., Cape Colony].

Apaloderma narina narina C. Grant, Ibis, 1915, p 406.

♂. Ithanga Hills. 4th October. Wing 125 mm.
Iris red ; bill greenish yellow ; legs dark green.

This Trogon was seen in very thick trees overhanging the Thika River. They do not seem to leave the shade of the trees, and often sit motionless on a bough for some time, consequently they are very easily overlooked.

Colius macrourus pulcher.

Colius macrourus pulcher Neum. J. f. O. 1900, p. 190
[Teita, E. Africa] ; C. Grant, Ibis, 1915, p. 404.

♀ imm. Tsavo River. 23rd July. Wing 83 mm.

♂. „ 27th July. „ 93 mm.

The Blue-naped Coly was generally seen in large flocks of thirty or forty in the thick bush along the Tsavo. They were feeding in the tops of the greener flat-topped acacias, hanging on underneath a bough like a Tit. They fly fast and straight, and a flock looks like a flight of arrows going feathers foremost.

Colius striatus affinis.

Colius leucotis affinis Shelley, Ibis, 1885, p. 312 [Dar-es-Salaam].

Colius striatus affinis C. Grant, Ibis, 1915, p. 400.

♂. Nairobi. 22nd August. Wing 95 mm.
Iris dark brown ; bill greenish slate ; legs dark pink.

Micropus affinis.

Cypselus affinis Gray in Hardwicke's *Illust. Ind. Zool.* i. 1832, pl. 35. fig. 2 [India].

Apus affinis Reichw. *Vög. Afr.* ii. 1902, p. 382.

♂. Tsavo. 17th August. Wing 122 mm.

Iris dark brown ; legs black.

Micropus æquatorialis.

Cypselus æquatorialis von Müller, *Naumannia*, i. pt. 4, 1851, p. 27 [Abyssinia].

Micropus æquatorialis C. Grant, *Ibis*, 1915, p. 311.

♀. Ithanga Hills. 8th October. Wing 210 mm.

♂. „ 9th October. „ 203 mm.

Iris dark brown ; bill black.

This fine Swift was generally seen at a great height. It would come down to a grass-fire, however, and could then be secured.

A grass fire is a very certain draw for many insectivorous birds. At this time of year many are started by natives. In starting one oneself, care should be taken as to where it is going to end up. An isolated patch of high grass about a hundred yards long is best, but see the fire out before you leave, especially if your camp is down wind.

Micropus melba africanus.

Cypselus alpinus africanus Temm. *Man. Orn.* 1815, p. 270 [S. Africa].

Apus melba africanus Reichw. *Vög. Afr.* ii. 1902, p. 377.

♀. Ithanga Hills. 3rd October. Wing 210 mm.

Iris dark brown ; bill black.

This Swift has the same habits as the last species.

Tachornis parvus subsp.?

Cypselus parvus Licht. *Verz. Doubl.* 1823, p. 58 [N.E. Nubia].

Tachornis parvus parvus C. Grant, *Ibis*, 1915, p. 309.

♀ ad. Tsavo River. July. Wing 120 mm.

This little Swift was common, flying round the tops of the doum-palms.

I am not at all certain which subspecies this Swift belongs to. The wing-measurement is very small for any of the eastern races. I should not be surprised if specimens from this part of the country did not have to be regarded as racially distinct.

Caprimulgus donaldsoni.

Caprimulgus donaldsoni Sharpe, Bull. B. O. C. iv 1895, p. xxix [Hargeisa, Somaliland]; Reichw. Vög. Afr. ii. 1902, p. 354.

♂. Tsavo Swamp. 8th August. Wing 132 mm.

Iris dark brown; legs brown.

This Nightjar was very numerous at one point just short of the swamp, several dozen being seen in the evening. I constantly saw Nightjars everywhere, but could not of course determine the species on the wing.

There are only three examples of this species in the British Museum.

Caprimulgus trimaculatus tristigma.

Caprimulgus tristigma Küpp. Neue Wirb. 1840, p. 105 [Gondar, Abyssinia].

Caprimulgus trimaculatus tristigma C. Grant, Ibis, 1915, p. 307.

♂. Ithanga Hills. 11th October. Wing 180 mm.

Iris dark brown; bill dark; legs light brown.

Apparently rare.

Caprimulgus fossei.

Caprimulgus fossei Hartlaub, Orn. W.-Afr. 1857, p. 23 [Gaboon]; Reichw. Vög. Afr. ii. 1902, p. 365.

♂. Nairobi. 22nd August. Wing 151 mm.

Iris, bill, and legs dark brown.

Merops apiaster.

Merops apiaster Linn. Syst. Nat. 1758, p. 117 [S. Europe]; C. Grant, Ibis, 1915, p. 299.

♂ ♀. Ithanga Hills. 2nd October. Wing, ♂ 146, ♀ 138 mm.

Iris red ; bill dark ; legs dark grey.

The Common Bee-eater was often seen at Thika and in the Ithanga Hills, usually in small flocks up to a dozen.

Both examples are in very worn plumage.

Melittophagus bullockoides.

Merops bullockoides A. Smith, S. African Quart. Journ. ii. 1834, p. 320 [S. Africa].

Melittophagus bullockoides C. Grant, Ibis, 1915, p. 298.

♂. Tsavo River. 10th August. Wing 114 mm.

Iris red ; bill and legs black.

I saw this Bee-eater on one occasion only, in open park-like country on the Tsavo. They were hawking flies from the tops of some tall acacias.

Melittophagus lafresnayi oreobates.

Melittophagus oreobates Sharpe, Ibis, 1892, p. 320 [Savé, B. E. Africa].

Melittophagus lafresnayi oreobates C. Grant, Ibis, 1915, p. 296.

♂. Thika. 27th August. Wing 103 mm.

♀ juv. ,, 1st September. ,, 100 mm.

Iris red ; bill black ; legs dark flesh-colour.

One or two small flocks of this Bee-eater were seen, probably migrating.

The chest of the immature bird is washed with green.

Melittophagus pusillus cyanostictus.

Melittophagus cyanostictus Cab. in Von der Decken, Reisen in Ost-Afr., Vögel, iii. pt. 1, 1869, p. 34 [Mombasa].

Melittophagus pusillus cyanostictus C. Grant, Ibis, 1915, p. 294.

♀. Tsavo River. 27th July. Wing 74 mm.

♀. ,, 13th August. ,, 78 mm.

♀. ,, 15th August. ,, 73 mm.

Iris red ; bill and legs black.

This little Bee-eater was very common, sitting on low

bushes along the more open stretches of the Tsavo ; it was also seen at Thika, but was not so numerous.

These specimens, though they have a fairly broad blue line above the throat-patch, have very little blue on the forehead.

Rhinopomastus cabanisi.

Irrisor cabanisi Filippi, Rev. Mag. Zool. 1853, p. 289 [White Nile].

♂ & ♀ ad. Tsavo River. 26th July. Wing, ♂ 100, ♀ 90 mm.

Not common, only one other pair was noticed.

Rhinopomastus cyanomelas schalowi.

Rhinopomastus schalowi Neum. J. f. O. 1900, p. 221 [Usandawe, G. E. Africa].

Rhinopomastus cyanomelas schalowi C. Grant, Ibis, 1915, p. 289.

♂. Tsavo River. 24th July. Wing 112 mm.

♂. Ithanga Hills. 10th October. „ 112 mm.

Iris dark brown ; bill and legs black.

This little Wood-Hoopoe was met with in the thorn-bush country, mostly in pairs.

Irrisor damarensis granti.

Irrisor damarensis granti Neum. Orn. Monatsb. 1903, p. 182 [Ukamba] ; C. Grant, Ibis, 1915, p. 287.

♂. Tsavo River. 23rd July. Wing 145 mm.

♀. „ 25th July. „ 142 mm.

Iris dark brown ; bill and legs red.

This Wood-Hoopoe was found in flocks of from four to twelve on the Tsavo. They would fly along in front with a Magpie-like chattering, and were fond of crawling about under the dead hanging leaves of the doun-palms.

Although the bills of these birds were marked red when the birds were killed, they are at present mainly black with red bases and edges. Otherwise they agree perfectly with the type of this subspecies.

Upupa africana.

Upupa africana Bechst. Kurze Uebers. iv. 1811, p. 172
[Congo & Cape]; C. Grant, Ibis, 1915, p. 279.

♀. Tsavo River. 21st July. Wing 135 mm.

♀. „ 24th July. „ 130 mm.

Iris dark brown; legs slate-colour.

In open bush country. Not often seen.

Bycanistes bucinator.

Buceros bucinator Temm. Pl. Col. 48 Livr. 1824, pl. 284
[Cape].

Bycanistes bucinator Reichw. Vög. Afr. ii. 1902, p. 243.

I did not secure specimens of the Trumpeter Hornbill, but several were seen on the Thika and on the Tsavo.

Bycanistes cristatus.

Buceros cristatus Rüpp. Neue Wirb. iii. 1835, p. 3, pl. i.
[Kordofan].

Bycanistes cristatus Reichw. Vög. Afr. ii. 1902, p. 240.

This large Hornbill was common at Thika and in the Ithanga Hills. It kept to the high trees by the river. I never secured one though I made many attempts.

Lophoceros deckeni.

Buceros deckeni Cab. in Von der Decken, Reisen, Vögel, iii. 1869, pt. 1, p. 37, pl. vi. [German East Africa].

Lophoceros deckeni C. Grant, Ibis, 1915, p. 274, text-fig. 3 a.

♂ ♀ ♀. Tsavo River. 22nd July. Wing, ♂ 180, ♀ 163, 175 mm.

♀. Tsavo River. 23rd July. Wing 185 mm.

Iris dark brown; bill (male) black, (female) red on the basal half, white on the terminal half; legs black.

Von der Decken's Hornbill was abundant.

I am afraid I cannot follow Claude Grant's remarks on *Lophoceros deckeni* and *jacksoni*, Ibis, 1915, pp. 275-6. His description of the bill of the female *L. deckeni*, i. e. "obliquely truncated, not curved," seems to be in direct opposition to his own figure, where *L. jacksoni* is shown as the truncated one.

Lophoceros flavirostris flavirostris.

Buceros flavirostris Rüpp. Neue Wirb. 1835, p. 6, pl. ii.
[Taranta Mts., Abyssinia].

Lophoceros flavirostris flavirostris C. Grant, Ibis, 1915,
p. 273.

♂. Tsavo River. 21st July. Wing 181 mm.

♀ ♀. „ 22nd July. „ 183, 181 mm.

Iris dark brown ; bill yellow ; legs black.

Common.

Lophoceros erythrorhynchus erythrorhynchus.

Buceros erythrorhynchus Temm. Pl. Col. 36^e Livr. 1823,
sp. 19 [Senegal].

Lophoceros erythrorhynchus erythrorhynchus C. Grant,
Ibis, 1915, p. 272.

♀ ad. Tsavo River. 22nd July. Wing 187 mm.

♀ ♀ imm. „ 24th July. „ 172, 169 mm.

♀. „ 25th July. „ 181 mm.

Iris brown or dark brown ; bill red ; legs black.

Common in the dry country.

Lophoceros nasutus nasutus.

Buceros nasutus Linn. Syst. Nat. 1766, p. 154 [Senegal].

Lophoceros nasutus nasutus C. Grant, Ibis, 1915, p. 270.

♂ imm. Tsavo. 2nd August. Wing 228 mm.

♂. Ithanga. 4th October. „ 220 mm.

Male imm. Iris yellow ; bill black ; legs brown.

Male ad. Iris dark brown ; bill white and red ; legs black.

The Tsavo specimen is rather interesting. It gives promise of being a much larger bird than the other. The bill is shorter, deeper, black, and not serrated. The basal part of the upper mandible is covered with a sort of scaly white enamel just beginning to form.

Lophoceros melanoleucus suahelicus

Lophoceros melanoleucus suahelicus Neum. J. f. O. 1905,
p. 187 [Morogoro, G.E.A.].

♀. Thika. 26th August. Wing 245 mm.

Iris yellow ; bill red ; legs black.

The Black-and-White Hornbill was common at Thika, but only one was seen on the Tsavo.

Bucorvus cafer.

Buceros carunculatus cafer Schl. Mus. Pays-Bas, Buceros, 1862, p. 20.

Bucorvus cafer Reichw. Vög. Afr. ii. 1902, p. 236.

♂. Tsavo River. 30th July. Wing 596 mm.

Iris light yellow; bill black; neck wattles red; legs black.

The Ground Hornbill was seen in the low country and the highlands. I have heard them make a noise among rocks which I took to be a lion roaring.

Halcyon chelicuti.

Alaudo chelicuti Stanley, Salt's Abyss. 1814, p. lvi [Chelicut, Abyssinia].

Halcyon chelicuti C. Grant, Ibis, 1915, p. 269.

♀ ad. Tsavo River. 23rd July. Wing 80 mm.

♂ ad. „ 30th July. „ 80 mm.

♂ ad. „ 13th August. „ 86 mm.

The Striped Kingfisher was common and mostly seen in dry country, feeding on insects.

Halcyon albiventris orientalis.

Halcyon orientalis Peters, J. f. O. 1868, p. 134 [Inham-bane].

Halcyon albiventris orientalis Reichw. Vög. Afr. ii. 1902, p. 275.

♂. Thika. 1st September. Wing 103 mm.

♂ imm. Tsavo River. 11th August. „ 101 mm.

Iris dark brown; bill and legs red.

Halcyon leucocephala leucocephala.

Alcedo leucocephala P. L. S. Müller, Linn. Syst. Nat. Suppl. 1776, p. 94 [Senegal].

Halcyon leucocephala leucocephala C. Grant, Ibis, 1915, p. 265.

♀. Thika River. 2nd September. Wing 105 mm.

Common.

Eurystomus afer suahelicus.

Eurystomus afer suahelicus Neumann, J. f. O. 1905, p. 186
[T'schara, Kilimanjaro].

♀. Ithanga Hills. 1st October.

♀. „ 9th October.

Iris dark brown ; bill yellow ; legs yellowish green.

Occasionally seen in flocks, perching on the high trees by the river. Locally known as Butcher Roller.

Coracias nævia nævia.

Coracias nævia Daud. Traité, ii. 1800, p. 258 [Senegal].

Coracias nævia nævia C. Grant, Ibis, 1915, p. 262.

♂. Ithanga Hills. 28th September. Wing 182 mm.

Iris dark brown ; bill dark ; legs dark brown.

This Roller was met with in the Thika district and Ithanga Hills only.

Coracias caudatus caudatus.

Coracias caudata Linn. Syst. Nat. 1766, p. 160 [Angola].

Coracias caudatus caudatus C. Grant, Ibis, 1915, p. 261.

♀. Thika. 28th August. Wing 167 mm.

♀. Tsavo Swamp. 4th August. „ 159 mm.

♀. „ 7th August. „ 163 mm.

Iris light brown ; bill dark ; legs light brown.

The plumage of the Thika bird is worn and much duller than the others.

The Long-tailed Roller was common in the low country and in the highlands. A grass-fire would draw numbers in the latter country.

Poicephalus rufiventris simplex.

Poicephalus simplex Reichw. J. f. O. 1887, p. 55 [Near Serian, German East Africa].

Poicephalus rufiventris simplex Madarasz, Orn. Monatsb. 1912, p. 80.

♂. Tsavo River. 20th July. Wing 152 mm.

2 ♀. „ 26th July. „ 150, 151 mm.

The Red-bellied Parrot was common on the Tsavo. It had

a loud shriek and a very fast flight. I saw it generally near baobab trees. This was the only Parrot seen.

The bill is very much larger, sex for sex, than in the northern race.

Glaucidium perlatum.

Strix perlata Vieill. N. Dict. d'Hist. Nat. vii. 1817, p. 26 [Senegal].

Glaucidium perlatum C. Grant, Ibis, 1915, p. 256.

♂. Tsavo River. 24th July. Wing 105 mm.

♂. „ 25th July. „ 105 mm.

I saw this little Owl on several occasions. In each case it was sitting on the bare bough of a tree without any pretence of concealment.

Falco cuvieri.

Falco cuvieri A. Smith, S. African Quart. Journ. i. 1830, p. 392 [Kei R., E. Cape Colony]; C. Grant, Ibis, 1915, p. 249.

♂ ad. Thika. 5th September. Wing 236 mm.

Iris dark brown; bill blue, cere yellow; legs yellow.

This was the only example of Cuvier's Falcon observed. It is in full adult freshly-moulted plumage.

Falco peregrinus minor.

Falco minor Schleg. Abh. Geb. Zool. & Vergl. Anat. iii. 2. Heft, 1844, p. 20 [Cape].

Falco minor Reichw. Vög. Afr. i. 1901, p. 622.

♀. Tsavo Swamp. 6th August. Wing 315 mm.

Iris dark brown; bill black, cere yellow; legs lemon-yellow.

This particular bird was exceedingly tame. I saw only one other Falcon of the same size, also in this district.

Poliohierax semitorquatus.

Falco semitorquata A. Smith, Rep. Exp. C. Afr. 1836, p. 44 [Bechuanaland].

Poliohierax semitorquatus C. Grant, Ibis, 1915, p. 249.

♂. Tsavo River. 10th August. Wing 127 mm.

Iris dark ; bill black, cere orange ; legs orange.

I also saw the African Falconet at Koru Halt near Muhoroni. Their habits, from the little I saw of them, were more those of a Shrike than of a Hawk.

Aviceda cuculoides verreauxi.

Aviceda verreauxi Lafr. Rev. Zool. 1846, p. 130 [Port Natal].

Bazu verreauxi Reichw. Vög. Afr. i. 1901, p. 619.

Imm. Thika. September. Wing 295 mm.

This was the only example of the Cuckoo-Falcon secured or noticed. It is in immature plumage, with the back and head brown interspersed with dark blue feathers. This specimen is named on locality only.

Though the adults of *A. c. cuculoides* from West Africa are easily distinguishable from *A. c. verreauxi* of South and East Africa, I can see no difference between the immature birds except that *A. c. cuculoides* has a tendency to darker coloration earlier. I certainly think *A. c. verreauxi* is merely a form of the other, and not a separate species.

Machærhamphus anderssoni.

Stringonyx anderssoni Gurney, P. Z. S. 1865, p. 618 [Damaraland].

Machærhamphus anderssoni Reichw. Vög. Afr. i. 1900, p. 596.

♀. Tsavo River. 12th August. Wing 364 mm.

Iris yellow ; bill black ; legs slate.

I saw only one example of this bird. I was standing outside my tent after dinner, watching some large bats. I determined to shoot one, and picked up a collector's gun ; as I did so, a large Hawk came past me going very fast, and I was lucky enough to kill it with a snap-shot. It was also undoubtedly after the bats.

The whole plumage is sooty-black, all the feathers having white bases, which show through in places, especially on the throat, down which, however, there is a central line of blacker feathers. There are four specimens in the British Museum, and one from Kampala in Uganda matches my bird well.

Milvus ægyptius

Falco ægyptius Gmel. Syst. Nat. i. 1788, p. 261 [Egypt].

♀. Ithanga Hills. 1st October. Wing 450 mm.

Iris dark brown; bill, cere, and legs yellow.

No Kites were seen in the Serengeti or on the Tsavo; elsewhere they were common. The Egyptian Kite frequented my camp on the Thika River.

This bird appears to be intermediate between *M. æ.* and *M. æ. parasitus*, but nearer the former.

Terathopius ecaudatus.

Falco ecaudatus Dand. Traité, ii. 1800, p. 54 [Knysna].

Terathopius ecaudatus C. Grant, Ibis, 1915, p. 247.

♂. Tsavo River. 26th July. Wing 505 mm.

♂ juv. Ithanga Hills. 3rd October. „ 490 mm.

Male adult. Iris dark brown; bill yellow, black at the tip; cere red; feet orange.

Male juv. Iris brown; bill yellowish green; legs whitish; cere yellow-green.

The Bataleur Eagle was commonly seen on the wing all through the country. Its shape is unmistakable and peculiar. I never happened to see it stoop at birds or come to dead animals, as I believe it will on occasions.

Asturina monogrammica.

Falco monogrammicus Temm. Pl. Col. i. 1824, pl. 314 [Senegal].

Kaupifalco monogrammicus Reichw. Vög. Afr. i. 1901, p. 547.

♀. Tsavo River. 2nd August. Wing 239 mm.

Iris orange; bill yellow, dark at the tip; legs orange-red.

This bird was met with in the dense bush along the Tsavo River. I did not see it elsewhere.

Lophoaëtus occipitalis.

Falco occipitalis Daud. Traité, ii. 1800, p. 40 [Knysna].

Lophoaëtus occipitalis C. Grant, Ibis, 1915, p. 246.

I did not secure a specimen of this Eagle, though I saw

many in the Thika district. The long crest and white patches on the wings are very noticeable. I did not see it in the low country.

Spizaëtus bellicosus.

Falco bellicosus Daud. Traité, ii. 1800, p. 38 [Gt. Namaqualand].

Spizaëtus bellicosus C. Grant, Ibis, 1915, p. 245.

♂. Tsavo River. 10th August. Wing 575 mm.

Iris yellow; bill black, cere blue; feet greyish white.

I saw a pair of Martial Hawk-Eagles on the Tsavo, and was lucky enough to kill one at long range. I never met with it again.

Hieraaëtus fasciatus spilogaster.

Spizaëtus spilogaster Bonap. Rev. et Mag. Zool. 1850, p. 487 [Abyssinia].

Hieraaëtus fasciatus Zedlitz, J. f. O. 1910, pp. 374-376.

♀. Tsavo River. 27th July. Wing 435 mm.

Iris yellow; bill blackish-horn; legs whitish green.

I found this Hawk-Eagle breeding in trees up the Tsavo River. They make a large and conspicuous nest of sticks on the top-fork of a tall tree. I saw three nests occupied and many others empty. This was in late July and early August. I believe the Spanish form, *H. f. fasciatus*, only breeds in rocks. The one I shot was sitting on a single, very much addled egg. The bird was in clean adult dress.

Hieraaëtus wahlbergi.

Aquila wahlbergi Sunde. Gefv. Vet.-Ak. Förh. 1850, p. 109 [Upper Kaffraria].

Hieraaëtus wahlbergi Reichw. Vög. Afr. i. 1901, p. 581.

♂. Ithanga Hills. 9th October. Wing 418 mm.

2 ♀ ad. & imm. Ithanga Hills. 11th October. Wing: ad., 422 mm.; imm., 410 mm.

The immature bird is much lighter in colour than the other.

Iris dark brown; bill dark, cere yellowish; feet yellowish.

Wahlberg's Eagle was not much in evidence until a grass-

fire occurred. Then I have seen as many as twenty or thirty at once, very busy with the disturbed insects. I did not meet with it in the low country.

Aquila pomarina pomarina.

Aquila pomarina Brehm, Handb. Naturg. Vög. Deutschl. 1831, p. 27.

Aquila pomarina pomarina Hartert, Vög. pal. Faun. ii. 1914, p. 1104.

♀ ad. Ithanga Hills. 12th October. Wing 483 mm.

Iris dark brown ; cere and feet orange ; bill dark.

I only saw one Spotted Eagle, which I secured. It came to a grass-fire and perched on a tree just in front of the flames. I recognised it as something fresh, and promptly shot it, though I had no little difficulty in retrieving it.

This is the first recorded instance of the occurrence of the Spotted Eagle in tropical Africa. The most southern occurrence I can find previous to this is that of one of the large race in Bogosland in Italian Eritrea.

Aquila rapax.

Falco rapax Temm. Pl. Col. i. 1828, pl. 455 [S. Africa].

Aquila rapax C. Grant, Ibis, 1915, p. 244.

♂ imm. Ithanga Hills. 29th September. Wing 492 mm.

Iris dark brown ; bill dark, cere yellow ; legs yellow.

I did not positively identify the Tawny Eagle on the Tsavo, though I saw several brown Eagles at a distance which were quite likely of this species. On the Thika, however, it was not uncommon. It is the only Eagle I ever saw come to carrion.

Buteo anceps.

Falco desertorum Daud. Traité, ii. 1800, p. 162 [Cape of Good Hope].

Buteo desertorum C. Grant, Ibis, 1915, p. 244.

Buteo buteo anceps Brehm : Hartert, Vög. pal. Faun. ii. p. 1125.

♀. Ithanga Hills. 10th October. Wing 370 mm.

Iris dark brown ; bill dark ; legs yellow.

This specimen agrees well with Reichenow's description of the red form of the adult, but from its behaviour I should have taken it to be a young bird. It was very tame and only flew from tree to tree, whereas all the other Buzzards and Kites—they were round a grass-fire—were distinctly shy.

The bird is brick-red beneath, the thighs being very little darker than the rest of the under surface; feathers of the back dark brown with red edges; tail brick-red. There are no specimens in the British Museum Collection of so red a colour.

Buteo augur.

Buteo augur Rüpp. Neue Wirb., Vög. 1835, p. 38, pl. xvi. [Abyssinia]; C. Grant, Ibis, 1915, p. 243.

♀. Thika. 1st September. Wing 435 mm.

Though the Augur Buzzard was common in the Ithanga Hills, I secured one only. The odd shape and breadth of its wings make it unmistakable when flying. I did not meet with it on the Tsavo. I had considerable difficulty in naming both these Buzzards: the variation in the plumage of *B. augur* is amazing. As I shot this specimen sitting, I did not recognise it as *B. augur*, which I should have done had I seen it flying.

General colour above brown with several darker feathers; below white with a tinge of chestnut in places and with large blackish-brown tips to the chest-feathers. Tail dirty chestnut with thin brown bars. The plumage was much worn.

Accipiter minullus.

Falco minullus Daud. Traité, ii. 1800, p. 88 [Gamtoos R., Cape Colony].

Accipiter minullus tropicalis Reichw. J. f. O. 1898, p. 139.

Accipiter minullus C. Grant, Ibis, 1915, p. 242.

♂ imm. Thika. October. Wing 150 mm.

♀. Tsavo River. 27th July. „ 155 mm.

Iris yellow; bill black; feet yellow.

The Least Sparrow-Hawk is not common in either locality.

Melierax gabar.

Falco gabar Daud. *Traité*, ii. 1800, p. 87 [Swartkop River, Cape Colony].

Melierax gabar C. Grant, *Ibis*, 1915, p. 240.

♀. Tsavo Swamp. 6th August. Wing 175 mm.

♀. Tsavo River. 11th August. „ 217 mm.

♀. Tsavo. 17th August. „ 194 mm.

Iris and cere yellow; bill black; legs orange.

This Hawk was very common on the Tsavo, and nearly always met with in pairs.

I saw a black-looking Hawk on August 11 passing through the tops of the trees along the Tsavo, and was fortunate in securing it by a long shot; it proved to be the black form of this species. I saw no others.

Melierax canorus poliopterus.

Melierax poliopterus Cabanis, *J. f. O.* 1868, p. 413 [Umba River, G. E. Afr.].

Melierax canorus poliopterus Erlanger, *J. f. O.* 1904, p. 163.

♂ ♀. Tsavo River. 24th July. Wing, ♂ 310, ♀ 340 mm.

♂. „ 15th August. „ 320 mm.

Iris hazel or dark brown; bill black, cere red or yellow; legs red or orange-colour.

Not uncommon on the Tsavo, both in the thick bush and on the Serengeti Plains. It was usually shy.

Serpentarius serpentarius.

Falco serpentarius Miller, *Var. subjects Nat. Hist.* 1779, pl. xxviii. [Cape of Good Hope].

Serpentarius serpentarius Reichw. *Vög. Afr. i.* 1900, p. 528.

♂. Ithanga Hills. 8th September.

I noticed a good number of Secretary Birds, both on the Serengeti and along the Thika. Some of them I saw constantly picking up something off the ground, and I believe they feed to a large extent on insects. I have also seen them walk behind a grass-fire looking for half-charred locusts and grasshoppers.

Pelecanus roseus.

Pelecanus roseus Gmel. Syst. Nat. i. pt. 2, 1789, p. 570 [Manila, Philippines]; Reichw. Vög. Afr. i. 1900, p. 101.

2 ♀. Tsavo River. 11th August. Wing 618 mm.

Iris cream-colour; bill blue, red, and yellow; legs red.

A large flock of Pelicans were seen in the early morning on the tops of some high trees by the Tsavo. The river was enclosed by bush at this point, and they could not have been feeding anywhere near. I presume they were on migration and had rested there for the night.

Plotus rufus.

Plotus rufus Lacep. et Daud. in Buffon Hist. Nat. (18mo ed. Didot), Quad. xiv. p. 319; Ois. xvii. 1799, p. 81 [Senegal].

Anhinga rufa Reichw. Vög. Afr. i. 1900, p. 95.

♂. Tsavo River. August. Wing 355 mm.

Several Darters were seen on the Tsavo at different times. They were shy and not common.

Anas undulata.

Anas undulata Dubois, Orn. Gal. 1839, p. 119, pl. 77 [Cape]; Reichw. Vög. Afr. i. 1900, p. 113.

♂. Thika District. 30th August.

I shot several Yellow-billed Ducks, but did not keep any skins. They were all young and in bad plumage.

Dendrocygna viduata.

Anas viduata Linn. Syst. Nat. i. 1766, p. 205 [Cartagena, Spain].

Dendrocygna viduata Reichw. Vög. Afr. i. 1900, p. 124.

♂ ad. Thika. 30th August. Wing 214 mm.

Iris dark; bill black, tipped with blue; feet blue-grey.

I noticed several White-faced Tree-Ducks among a large number of the Yellow-billed Ducks, on a small pool near Thika.

This specimen was shot by the late R. B. Woosnam, who was with me at the time.

Alopochen ægyptiacus.

Anus ægyptiaca Linn. Syst. Nat. i. 1766, p. 197 [Egypt].

Alopochen ægyptiacus C. Grant, Ibis, 1915, p. 73.

♂ & ♀ ad. Tsavo. 21st August.

I saw the Egyptian Goose on this occasion only, and secured a right and left with a .410 collector's gun.

Ardeola ralloides.

Ardea ralloides Scopoli, Ann. i. 1769, p. 88.

Ardeola ralloides Reichw. Vög. Afr. i. 1901, p. 374.

♀. Tsavo Swamp. 6th August. Wing 215 mm.

Iris yellow; bill green; legs green.

The Squacco Heron was seen in most places where there was water.

Ardea goliath.

Ardea goliath Cretzschmar in Rüpp. Atlas, 1826, p. 39, pl. 36 [White Nile]; Reichw. Vög. Afr. i. 1901, p. 376.

♀ imm. Thika River. 3rd October.

Rarely seen on the Tsavo and Thika rivers.

Ephippiorhynchus senegalensis.

Micteria senegalensis Shaw, Trans. Linn. Soc. v. 1798, p. 35, pl. 3 [Senegal].

Ephippiorhynchus senegalensis C. Grant, Ibis, 1915, p. 67.

♀. Tsavo Swamp. 3rd August.

Bill red, black band, yellow saddle; iris yellow; legs black, joints pink.

Only seen on this one occasion, and secured by a lucky flying shot with a .22 rifle.

Hagedashia hagedash erlangeri.

Hagedashia hagedash erlangeri Neumann, Ornith., xiii. 1909, pp. 193, 195 [Dogge, S. Somaliland].

♂. Ithanga Hills. 4th October. Wing 368 mm.

Iris white; bill purple and black; legs dark red and black.

This Ibis was not uncommon on the Tsavo and Thika rivers.

Balearica regulorum gibbericeps.

Balearica gibbericeps Reichw. J. f. O. 1892, p. 126 [E. Africa].

Balearica regulorum gibbericeps Reichw. Vög. Afr. i. 1900, p. 266.

♂. Thika. 25th August.

Iris dark; bill and legs black; cheek and throat red.

The Crowned Crane was seen on the swamps of the Tsavo, and on the open plains at Thika a long way from water.

Otis kori struthiunculus.

Otis kori struthiunculus Neum. J. f. O. 1907, p. 306 [Lake Zwai]; C. Grant, Ibis, 1915, p. 65.

♂ ♀ ad. Tsavo River. 6th August. Wing, ♂ 641, ♀ 573 mm.

This Bustard was not uncommon on open ground, both in the Serengeti and the highlands. Sometimes they were quite tame. I took four shots to kill the male of these two at about 200 yards, and he did not seem in the least alarmed.

Otis senegalensis canicollis.

Otis canicollis Reichw. Orn. Centralb. 1881, p. 79 [R. Juba].

Otis senegalensis canicollis C. Grant, Ibis, 1915, p. 65.

♂. Tsavo River. 1st August. Wing 313 mm.

Iris cream-colour; bill cream-colour, tipped with dusky; legs cream-colour.

The Grey-necked Bustard was not uncommon on the Serengeti Plains.

This bird is certainly more sandy on the back than any of Claude Grant's specimens or than any in the collection from British or German East Africa. It is probably the *Otis canicollis erlangeri* of Reichenow, and is a variation of *O. s. canicollis*, other specimens from near localities being dark.

Otis ruficrista gindiana.

Eupodotis gindiana Oustalet, Bull. Soc. Philom. 1881, p. 163 [Somaliland].

Lophotis gindiana Sharpe, Cat. Birds Brit. Mus. xxiii. 1894, p. 292.

Otis ruficrista gindiana Zedlitz, J. f. O. 1914, p. 635.

♂ ♀ ad. Tsavo Swamp. 7th August. Wing, ♂ 272, ♀ 265 mm.

Iris cream-colour; bill dark; legs brownish grey.

Quite common in thin bush at this point. Not seen elsewhere.

Cursorius temminckii.

Cursorius temminckii Swainson, Zool. Illustr. ii. 1822, p. 106.

Cursorius temminckii C. Grant, Ibis, 1915, p. 60.

2 ♀. Ithanga Hills. 27th September. Wing 116 & 121 mm.

Iris dark brown; bill dark; legs white.

Common on the bare patches of ground surrounded by bush in the Ithanga Hills and Thika district.

Tringoides hypoleucus.

Tringa hypoleucos Linn. Syst. Nat. 1758, p. 149 [Sweden]; C. Grant, Ibis, 1915, p. 58.

♀. Tsavo Swamp. 6th August. Wing 109 mm.

♀. Thika. 3rd September. „ 110 mm.

Iris dark brown; bill dark; legs greenish slate.

The Common Sandpiper was seen on the Tsavo River in several places, and also on the high ground near Thika. It was one of the very few European birds I saw at this time of year.

Stephanibyx coronatus.

Charadrius coronatus Boddaert, Tab. Pl. Enl. 1783, p. 49 [Cape].

Stephanibyx coronatus C. Grant, Ibis, 1915, p. 56.

♂ ♀. Tsavo Swamp. 6th August. Wing 195 & 188 mm.

♀. Ithanga Hills. 2nd October. „ 192 mm.

Iris yellow; bill black, red at the base; legs red.

The Crowned Lapwing was common in both localities. It flies round shrieking when disturbed, and is a great

nuisance when one is after large game. I saw a young one in down at Thika in late August.

Hoplopterus armatus.

Charadrius armatus Burchell, Travels, i. 1822, p. 501 [Klaarwater, or Griquatown, Cape Colony].

Hoplopterus armatus C. Grant, Ibis, 1915, p. 55.

♂. Tsavo Swamp. 6th August. Wing 190 mm.

Iris deep crimson; bill and legs black.

A pair of Spur-winged Plovers were seen by a swamp in the top reaches of the Tsavo. They were not met with elsewhere.

Podica sp.

♀. Thika River, Ithanga Hills. 3rd October. Wing 190 mm.

This Finfoot was not uncommon on the Thika River near the Ithanga Hills. I saw it usually in pairs and often in swift running water. It was shy, and went straight to cover under the opposite bank.

In attempting to name this bird I went carefully over all the specimens in the Natural History Museum, and though the material is very incomplete, certain points of interest became evident. The first is that there are two distinct species in South and East Africa, not one as is usually supposed. The one is *Podica petersi* Hartl., a very large bird, apparently rare, and confined to the east coast, from the mouth of the Tana River in British East Africa to Bathurst in eastern Cape Colony. The other is a much smaller bird, ranging from Cape Colony through the Transvaal, Zululand, and Nyasaland to the highlands of British East Africa. This smaller bird may or may not be distinct from *Podica senegalensis* of north-western Africa.

The difference is mainly in size. *Podica petersi* has a wing of from 230–252 mm., the other bird 183–211 mm. At any rate in breeding-plumage, and possibly at other times as well, the adult male of *P. petersi* has a black foreneck;

so has the adult male of *P. senegalensis*. I cannot find any evidence that the smaller and commoner bird ever assumes a black foreneck. If it does, it is probably indistinguishable from *P. senegalensis*; but it is at least noteworthy that out of seven *P. senegalensis* from West Africa, two have a black neck, out of four *P. petersi* from the east coast, two have a black neck, and out of fourteen of this bird, none has a black neck. Further, I must have seen a dozen pairs or more on the Thika River, and though I was not paying any great attention to them, I am pretty sure I should have noticed a black-necked one. However, whether distinct from *P. senegalensis* or not, it is certainly distinct from *P. petersi*.

The male described in Stark and Sclater's 'Fauna of South Africa' is true *P. petersi*, the female probably the other bird. The male figured in Sharpe and Layard's 'Birds of South Africa' is also *P. petersi*, being probably specimen No. 2 in the appended list. Reichenow, who unites *P. petersi* with *P. senegalensis*, is probably only thinking of the smaller bird.

The next point is that *Podica jacobi* Reichw. is the female and non-breeding male of *P. camerunensis* Sjöst., as the series of birds collected by Mr. G. L. Bates in the Cameroons shows clearly. I append a list of the birds at present in the Natural History Museum.

1. *PODICA SENEGALENSIS*.

Heliornis senegalensis Vieill. N. Dict. H. N. xiv. 1817, p. 279.

Hab. Senegal, Gambia, Sierra Leone, Gold Coast, South Nigeria.

	mm.			
1. Ad. ? ♂.	Wing 205.	Sierra Leone.	25. 12. 04.	Black foreneck.
2. Ad. ? ♂.	„ 203.	Gambia.	?	„
3. Ad. ?	„ 205.	„	?	White foreneck.
4. Ad. ?	„ 203.	Gold Coast.	?	„
5. Ad. ?	„ 182.	Senegal.	?	„
6. Juv.	„ 174.	„	?	„
7. Juv.	„ 160.	S. Nigeria.	12. 1. 12.	„

2. *PODICA PETERSI*.

Podica petersi Hartl. Abhandl. nat. Ver. Hamburg, ii. 1852, p. 62.

Podica mossambicana Peters, Ber. Verh. k. Preuss. Akad. Berlin, 1853, p. 783 [Mozambique].

Heliornis impipi Licht. Nomencl. Av. 1854, p. 104.

Hab. East Coast of Africa, from British East Africa to East Cape Colony.

		mm.			
1. Ad. ? ♂.	Wing	252 (worn).	S.E. Africa.	?	Black foreneck.
2. Ad. ♂.	"	252.	Natal.	?	"
3. Ad. ♀.	"	240.	Mozambique.	?	White foreneck.
4. Ad. ♀.	"	230 (much worn).	Tana River (mouth).	May.	"

3. *PODICA* sp. ?

Hab. South Africa : Transvaal, Zululand, Nyasaland, British East Africa (highlands).

		mm.			
1. Ad. ♀.	Wing	198.	South Africa.	26 March.	White throat.
2. Ad. ?	"	200.	"	?	"
3. Ad. ?	"	196.	"	?	"
4. Ad. ?	"	210.	"	?	"
5. Ad. ?	"	206.	"	?	"
6. Ad. ?	"	211.	"	?	"
7. Ad. ?	"	205.	Transvaal.	26 May.	"
8. Ad. ♀.	"	210.	Zululand.	15 Aug.	"
9. Ad. ♀.	"	199.	"	24 Sept.	"
10. ? Ad. ♂.	"	195.	Nyasaland.	June.	"
11. Ad. ♀.	"	clipped.	"	1 Oct.	"
12. Ad. ♀.	"	clipped.	"	November.	"
13. ? Ad. ♀.	"	183.	"	June.	"
14. Ad. ♀.	"	191(worn).	B. E. Africa.	3 Oct.	"

4. *PODICA CAMERUNENSIS*.

Podica camerunensis Sjöst. Orn. Monatsb. i. 1893, p. 42 ; Reichw. Vög. Afr. i. 1900, p. 300.

Podica jacobi Reichw. J. f. O. liv. 1906, p. 325.

Hab. Cameroons.

		mm.			
1. Ad. ♂.	Wing	187.	R. Ja.	26 Aug.	Very black breast and foreneck.
2. Ad. ♂ (testes large)	"	188.	"	24 Apr.	Less black breast, black foreneck.
	G. L. B.				
3. Ad. ♂.	"	191.	"	10 Mar.	" "

	mm.				
4. Ad. ♂ (testes medium)	Wing 193.	R. Ja.	27 Feb.	White breast and	
G. L. B.				foreneck.	
5. Ad. ♂.	" 189.	"	26 Jan.	" "	
6. Ad. ♀.	" 152.	"	30 Apr.	" "	
7. Ad. ♀ (ova in ovary)	" 160.	"	27 Mar.	" "	
G. L. B.					
8. Ad. ♀ (ova in ovary)	" 170.	"	23 Mar.	" "	
G. L. B.					
9. Ad. ♀.	" 171.	Efulen.	1 Feb.	" "	
10. Ad. ♀.	" 160.	R. Ja.	10 Feb.	" "	
11. Ad. ♀.	" 162.	"	27 Dec.	" "	

Specimens 4–11 agree exactly with Reichenow's description of *P. jacobi*, and this therefore becomes a synonym.

Since the above was written, Dr. Hartert has very kindly sent me information about the specimens from South and East Africa in Tring Museum. Two males—one from Natal, the other from East London—are large, having wing-measurements of 235 and 243 mm. respectively; the others average just over 200 mm. None have black necks, but all are from Natal or East Cape Colony. I am still inclined to believe in the presence of two separate species in this district. For, even allowing that there may be disparity of size in the sexes (there is such in *P. camerunensis*, but not apparently in *P. senegalensis* proper), there is still the fact that the large eastern and small Senegal birds assume a black neck, and the intervening central and southern form does not. I should not, however, feel justified in giving this third form a name on the very incomplete material available.

Limnocorax niger.

Rallus niger Gmel. Syst. Nat. i. pt. 2, 1789, p. 717 [Cape].

Limnocorax niger C. Grant, Ibis, 1915, p. 46.

♂ ad. Thika. 5th September. Wing 106 mm.

Iris red; bill light green; legs red.

I met with the Black Rail on one occasion only, several being seen on the road beyond Chania Bridge where it passes through a small papyrus swamp.

Turtur chalcospilos.

Columba chalcospilos Wagler, Syst. Av., Col. 1827, sp. 83 [Senegal].

Turtur chalcospilos C. Grant, Ibis, 1915, p. 39.

♂ ♀. Tsavo. 19th July. Wing, ♂ 105, ♀ 105 mm.

Iris black; bill purplish lead; feet purple.

This Dove was numerous on the Tsavo, and generally seen feeding on the ground under the bushes; it was not noticed elsewhere.

This would be *T. c. acanthina* of Oberholser, P. U.S. N. M. 1905, p. 845, if that subspecies is found to be valid.

Æna capensis.

Columba capensis Linn. Syst. Nat. i. 1766, p. 286 [Cape].

Æna capensis C. Grant, Ibis, 1915, p. 45.

♀. Tsavo River. 29th July. Wing 102 mm.

♀. Tsavo Swamp. 3rd August. „ 103 mm.

Iris dark brown; bill dark; feet purple.

These birds are from the type-locality of *Æ. c. anonyma* Oberholser, P. U.S. N. M. 1905, p. 843.

The Long-tailed Dove was seen only at two points on the Tsavo River, both fairly far up; like the last species, it was also fond of feeding on the ground.

Streptopelia capicola damarensis.

Turtur damarensis Finsch & Hartl. Vög. Ost-Afr. 1870, p. 550 [Damaraland].

Turtur capicola tropicus Reichw. Orn. Monatsb. 1902, p. 139.

Streptopelia capicola damarensis C. Grant, Ibis, 1915, p. 42.

♀. Thika. September. Wing 146 mm.

This Dove was very common everywhere. The bushes along the Tsavo were sometimes covered with them, though I cannot say whether it was the same subspecies which occurred in both places.

Streptopelia semitorquata semitorquata.

Columba semitorquata Rüppell, Neue Wirb. 1835, p. 66, pl. 23 [Taranta Mt., N. Abyssinia].

Streptopelia semitorquata semitorquata C. Grant, Ibis, 1915, p. 41.

♀. Thika. 28th March. Wing 173 mm.

♂. „ 29th March. „ 180 mm.

Iris dark, surrounded by red ; bill dark ; legs purple.

This Turtle-Dove was common at Thika, and generally quite tame. I did not meet with it in the Ithanga Hills or in the low country.

Vinago calva salvadorii.

Vinago calva salvadorii Dubois, P. Z. S. 1897, p. 784 [East and Central Africa] ; C. Grant, Ibis, 1915, p. 36.

2 ♂. Thika. 31st August. Wing 169 & 175 mm.

Iris light blue, with light pink ring ; bill red, tip white ; legs red.

Very common at Chania Bridge and along the Thika ; they came to feed on the wild figs. I found them almost impossible to see among the leaves, as they sit very still. I saw no Green Pigeons in the low country.

Pterocles gutturalis saturator.

Pterocles gutturalis saturator Hartert, Nov. Zool. vii. 1900, p. 29 [British East Africa].

♀. Thika. 28th August. Wing 206 mm.

Iris dark brown ; legs grey-brown.

This Sand-Grouse was met with on the edge of the Athi Plains near Thika. It was common, but wild.

Pterocles decoratus decoratus.

Pterocles decoratus Cabanis, J. f. O. 1868, p. 413 [Lake Jipe].

Pterocles decoratus decoratus C. Grant, Ibis, 1915, p. 32.

♀. Tsavo River. 26th July. Wing 160 mm.

♂. „ 7th August. „ 165 mm.

Iris dark brown ; bill dark ; feet greenish yellow.

This Sand-Grouse was found on the Serengeti Plains and in quite thick bush by the river. I came across three nests in early August, each with two eggs.

Acryllium vulturinum.

Numida vulturina Hardw. P. Z. S. 1834, p. 52 [West coast of Africa!].

Acryllium vulturinum Reichw. Vög. Afr. i. 1901, p. 448.

♂. Tsavo River. 27th July. Wing 326 mm.

Iris vermilion; bill greenish; legs black.

The Vulturine Guinea-Fowl was met with only in thick bush in the low country. They were generally shy and in large flocks. They roosted at night in the thorn-trees well back from the river. Their range ceases as the bush gets more open, and shortly afterwards Reichenow's Helmeted Guinea-Fowl appears.

Numida reichenowi.

Numida reichenowi Ogilvie-Grant, Ibis, 1894, p. 535 [Ukambani]; C. Grant, Ibis, 1915, p. 23.

♂. Tsavo River. 29th July. Wing 286 mm.

Iris dark brown; helmet brown; neck blue, wattles red; bill greenish; legs black.

Reichenow's Helmeted Guinea-Fowl was met with in the more open country towards the head-waters of the Tsavo. I must have seen several thousand come down to drink at one swamp. They walked out of the bush in flocks of twenty or thirty and congregated on the shore. They were very tame.

Pternistes leucoscepus infuscatus.

Pternistes infuscatus Cabanis, J. f. O. 1868, p. 413 [Lake Jipe].

Pternistes leucoscepus infuscatus C. Grant, Ibis, 1915, p. 20.

♂ ad. Tsavo River. 28th July. Wing 206 mm.

Iris dark brown; bill dark; throat and naked skin round eye red; neck yellow; legs black.

This Spur-Fowl was seen in very large numbers on the edge of the Serengeti Plains. It did not occur in the thick bush. It was also fairly numerous in the Kikuyu shambas on the Fort Hall road.

Francolinus uluensis.

Francolinus uluensis Ogilvie-Grant, Ibis, 1892, p. 44 [Machakos]; C. Grant, Ibis, 1915, p. 13.

♀ ad. Ithanga Hills. 27th September. Wing 165 mm.

♀ ad. „ 28th September. „ 160 mm.

The Machakos Francolin was met with only in the Thika district, where it was the commonest game-bird. It was generally observed in coveys of four or five.

Francolinus sephæna grantii.

Francolinus grantii Hartlaub, P. Z. S. 1865, p. 665, pl. 39 fig. 1 [Unyamuezi].

Francolinus sephæna grantii C. Grant, Ibis, 1915, p. 10.

1. ♀ ad. Tsavo River. 20th July. Wing 138 mm.

2. ♂ ad. „ 22nd July. „ 140 mm.

3. ♂ ad. „ 28th July. „ 158 mm.

4. ♀. Ithanga Hills. 5th October. „ 141 mm.

Specimen No. 3 is unusually large for this race, but agrees in other respects, being much redder above than Neumann's description of *F. s. schoensis* (Neumann, J. f. O. 1904, p. 357).

Iris brown or hazel; bill dark; legs red, pink in No. 3.

Very common in the bush along the Tsavo. Its call was always to be heard in the morning and evening. It occasionally perched on a tree when flushed. I only saw one or two on the Thika.

Francolinus coqui coqui.

Perdix coqui Smith, Rep. Exp. C. Afr. 1836, p. 55 [Kurrichaine].

Francolinus coqui Reichw. Vög. Afr. i. 1901, p. 492.

♂ ad. Ithanga Hills. 8th October. Wing 137 mm.

♂. „ 27th September. „ 140 mm.

Iris light brown; bill dark; legs yellow.

This Francolin was not very numerous. When flushed it made for the nearest thick cover, and was exceedingly hard to put up again.